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PATIENTS' EFFECT ON NURSES' JOB SATISFACTION  
AT TRIPLER ARMY MEDICAL CENTER

A Graduate Research Project  
Submitted to the Faculty of  
Baylor University

In Partial Fulfillment of the  
Requirements for the Degree

of  
Master of Health Administration

by

Major Kathleen L. Kelm, AN

June 1991

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## I. Introduction

### Conditions Prompting the Study

Nurses are half of the work force in hospitals and are needed in increasing numbers. The American Journal of Nursing ("613,000 new," 1990, p. 74) quoted a federal Labor Department forecast that demand for registered nurses will rise by 39% by the end of the century. Although the recession appears to have also triggered a 14% increase in nursing school enrollments in 1990 ("Student count," 1991, p. 11), demographics discourage celebration because "The baby-bust period comes at a time of rising demand (the baby-boom generation is having children and taking care of parents during catastrophic illnesses) but smaller age cohorts" (Green, 1987, p. 1612).

Those who do go into nursing are less qualified. Freshmen planning to go into nursing have lower high school and college averages than other freshmen, and there is ample evidence (Green, 1987, p. 1611) that academically able women are flooding into medical schools. One in eight RN positions went unfilled in 1989 ("PN enrollments," 1990, p. 11). As one RN who asked to remain anonymous put it, "nursing needs more

people smart enough to be nurses and stupid enough to go into nursing."

Relatively fewer people are going into nursing and those who do are less qualified. Except in the military where 30 to 40% of the nurses are male, nursing is 96% female. Women who complete nursing education work part time or go into another field more frequently than women in comparable professions. The media frequently report on burnout among nurses, and few nurses recommend the field.

These many signs of a troubled profession may be linked by the concept of satisfaction. The practice of nursing may not be satisfying its practitioners and these circumstances may be contributing to a shortage of registered nurses. Stamps and Piedmonte (1986) said "this shortage is not due to the lack of trained nurses, but rather their unwillingness to continue in or return to nursing positions because of their occupational dissatisfaction" (p. 13).

Because approximately half of the budget of a modern hospital is used for nursing salary and benefits, decreasing unnecessary nursing costs can have a broad impact. Prescott and Bowen (1987) observed: "Turnover, a chronic problem in the nursing labor force, is one



major source of nonessential expense" (p. 60). They said that hospitals must, on the average, recruit 30% of their nursing staff annually, at \$2,000 to \$3,000 each (p. 60).

Current decreases in the nursing school cohort and the retirement of the aging World War Two Cadet Corps nurses make it unlikely that recruitment costs will decrease. The annual turnover rate of employed nurses ranges from 16 to 70%. Turbulent turnover of nurses is no longer prudent; in the past, the ample supply of new graduates at low salaries made recruitment both easy and inexpensive. This is no longer true (Prescott & Bowen, 1987).

The Veterans' Administration surveyed 172 of their medical centers and found a 16% turnover rate among registered nurses, with vacancies averaging 55 days a year (Wagner, 1987, p. 164). Unnecessary staff turnover and preventable illness or error represent additional potentially avoidable expenses.

Although recruited and oriented, a nurse may still not be productive. Extensive literature concerning nurse burnout has identified important costs, both in dollars and in decreasing quality of life. These costs may have similar causes.

Review of the Literature

Nursing turnover may represent, in part, an escape from a situation that could cause burnout. Stamps and Piedmonte (1986) said "burnout is now being postulated as a significant contributor to nurse turnover" (p. 11). Not all nurses leaving positions are burned out. Prescott and Bowen (1987) interviewed 111 nurses who had resigned and found multiple reasons for leaving. The 60 nonwork related reasons identified included relocation, personal/family, distance to work, desire to attend school, and hospital location--all factors beyond managerial control. Factors that were "work related reasons" included scheduling, administration, lack of stimulation, nursing practice, salary and staffing. These were mentioned 135 times by the 111 resignees.

After asking the reasons, the study asked the same sample of leavers and a group of 1,044 stayers to rank order 22 factors in resignation decisions. They agreed on seven of the top ten factors: workload, staffing, time with patients, flexible scheduling, respect from nursing administration, promotion opportunities and salary. Prescott and Bowen (1987) nurses called turnover "evidence of quest rather than exit" (p. 62).

This list looks very much like the list of nurses' satisfiers identified by Stamps and Piedmonte (1986): pay, autonomy, the task itself, organizational policies, professional status, and interaction with other professionals.

Nurses' sources of job satisfaction have been extensively studied. It may be postulated that if nurses can be more satisfied, absenteeism, recruitment and orientation costs might decrease; although Larson, Lee, Brown and Schorr (1984) caution against viewing improving nurse satisfaction as the panacea for the ailments of an organization.

Wandelt, Pierce and Widdowson (1981) felt that dissatisfiers were not the same as satisfiers in her study of 3,500 Texas nurses. She found that "data from the interviews reinforced the conclusion that dissatisfaction stems from the work setting rather than nursing practice" (Wandelt et al., 1981, p. 73). Wandelt et al. found the nurses dissatisfied with pay, paperwork, administrative support, opportunities for continuing education, nurse practice laws in Texas, and nursing administration. Patient care was not a dissatisfier in her study. Their study did not look at satisfiers.

Mazzella (1986) introduced the importance of the satisfaction of patient care for nurses.

The biggest reward of nursing, though, is the reward of love. What could be more gratifying than to know that you've helped restore someone's health, made someone less frightened, perhaps even made aging, illness, and death itself a little easier to bear?

Whatever difficulties a nurse has faced, she knows they were all worthwhile. She was there for her patients, to paraphrase the popular song, when "they needed her" (Mazella, 1986, p. 65).

An editorial quoted a letter from a nurse who quit nursing because of unnecessary restrictions to her nursing practice that interfered with patient care:

"I wanted to spend time with my patients--time they have a right to expect. Time to listen, time to make observations that will help me improve the quality of their lives.

"I wanted to go home at the end of a shift feeling I had done a good job, but too often that was not the case" (Editorial, 1986, p. 82).

#### Theoretical Basis for Analysis of Nurses' Satisfaction

A theory of hygiene factors propounded by Herzberg, Mausner and Snyderman (1959) seems to explain much of the nursing satisfaction/dissatisfaction data. While the concept of hygiene factors can explain complaints about pay, paperwork and restrictions, another

perspective might be that some of these factors actively interfere with a valued satisfier--patient contact.

There is scant support for this. Studies tend to list as major components of nurse satisfaction factors like autonomy, pay, professional status, interaction with professionals, organizational requirements, and the task requirements of the job. Attitudes toward the job content have been captured in surveys using phrases such as "rewards for the work itself" (Stamps & Piedmonte, 1986, p.9) and "enjoyment of my work" (Everly & Falcione, 1976, p. 347). Stamps and Piedmonte (1986) said of task requirements, "Although little empirical research has been done to document how significant this particular factor is, it is often mentioned as one of the more important variables" (p. 16).

Analysis of the job or task requirements of nursing can start with an obvious source. The American Heritage Dictionary (1976, p 901) defines a nurse as a person trained to give care to the sick or disabled. The task of nursing basically involves giving patients care, either directly or indirectly. Studies have not adequately explored the potential importance of patient-nurse interaction as part of the variable "task." "Interaction" was identified as a major satisfier in the

Stamps and Piedmonte (1986) study, but was narrowly defined as nurse-nurse or nurse-physician. Everly and Falcione (1976) said "Relationship Orientation" accounted for 24% of the variance in their study of 144 nurses' satisfaction. These researchers said, "This factor suggests that nurses' interpersonal relationships with their co-workers, immediate supervisors, and general supervisory personnel are of the utmost importance" (Everly & Falcione, 1976, p. 347). They did not ask their subjects about interaction with patients.

The Honolulu Advertiser (1987) ran a Boston Globe story that quoted a social worker, Virginia Goolkasian, saying

... that if she had a daughter, "I would somehow sit down with her and make sure she understood that if she was going to be a nurse, she was going to have to realize most of the reward comes from the personal satisfaction, versus financial rewards-- and what does that mean? That's what no one ever spelled out for me: What does it mean not to be making a very good salary? I don't want to be budgeting for the rest of my life" (p. C-4).

An apparent assumption in most of the literature is that the patient is always a social non-being, or at best, another stressor to the burnout prone nurse.

House (1981) put it this way:

... We can demand or buy support in a unilateral way from professionals and specialists whose job it

is to provide certain kinds of support (for example, service or care givers, clergymen, and mental health workers) (p. 93).

However, social support may not be unilateral from care-giver to patient. It may be bilateral in some cases and be very highly valued.

Several studies have suggested the potential importance of satisfaction from the content of the patient care role. Stull looked at 52 staff nurses who reported that they valued communication with patients and families more than communication with the head nurse ("Performance feedback," 1986, p.17). Campbell (1986) received answers from 31 nurses who listed patient and family care and education as their greatest satisfaction. A pilot study (E. Baud, personal communication, September 1986) of open ended questioning about the importance of patients to satisfaction yielded vehement affirmatives. One nurse said, "Yes, I certainly would have quit before now if it weren't for the patients," and another responded, "Patients keep me coming back."

Social role theory may offer one explanation of the potential potency of patient-nurse interaction, as reflected in the editorials, pilot study, and high

satisfaction in the variable "task." Hirsch and Rapkin (1986) stated:

The support or rejection of social network members is likely to have a critical effect on role satisfaction. . . . At its heart, major social roles are at least implicitly defined in relation to others who hold complementary roles. It is difficult to be a wife without a husband, a supervisor without a supervisee, a nurse without a patient, and so on. These role partners help to shape role expectations and behavior. They may also provide or withhold cognitive, emotional, and material assistance that can be used to accomplish role tasks. Attempts at assistance may also backfire, hindering role functioning. Finally, they either validate or cast into doubt the adequacy of role performance. Our social network thus helps to define, influence, and evaluate our functioning in our roles.

For women, there may be additional reasons why the response of network members will be important . . . women are more likely than men to be socialized to expressive roles emphasizing emotional nurturance and support. . . . General emotional support is necessary in order not to become burned out from the expressive role. This is particularly relevant [sic] for women engaged in caregiving occupations . . . such as nursing (p. 1238).

In Work Stress and Social Support, House (1981)

discusses the nature of social support and identifies four forms of social support:

1. Emotional support (esteem, affect, trust, concern, listening).
2. Appraisal support (affirmation, feedback, social comparison).
3. Informational support (advice, suggestion, directives, information).



4. Instrumental support (aid in kind, money, labor, time, modifying environment) (p. 23).

Patients can be rich sources of all four kinds of support. House (1981) also diagrammed a model of the effect of social support on work stress and health.

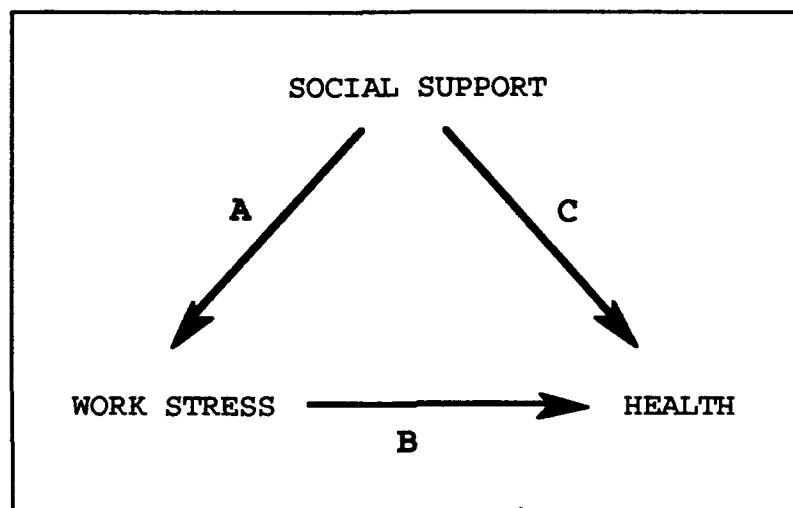


Figure 1. Effect of Social Support on Work Stress and Health

Explaining the model, House said:

...First, social support can directly enhance health and well-being because it meets important human needs for security, social contact, and approval, belonging, and affection [Arrow C].

Second, support, at least from people at work, can directly reduce levels of occupational stress in a variety of ways [Arrow A], and hence indirectly improve health [via Arrow B]. For example, supportive supervisors and coworkers can minimize interpersonal pressures or tensions; and

the experience of support can satisfy work related motivations for affiliation, approval, and accurate appraisal of the self and the environment, generally leaving workers more satisfied with themselves and their jobs (1981, p. 31).

Arrow A in this model also suggests that withholding (or not being able to provide) social support can increase job stress. A patient who does not cooperate withholds instrumental support and increases job stress. A nurse abruptly showered with excreta may word it differently.

Where does a nurse occasionally facing unpleasant events get her support? Hirsch and Rapkin (1986) looked at the support of the social network and found marital satisfaction had little effect on nurses' work satisfaction. Others (Stamps & Piedmonte, 1986, p. 12) have looked at the supervisor, the head nurses' management style, shift patterns, years in nursing, and levels of education.

Social network theory appears to explain findings by Abramowitz, Cote and Berry (1987) that patients' satisfaction with their nursing care correlated most closely with their satisfaction with the hospital stay. They said:

...there is no psychological mantle shielding nurses from patient perceptions as there is for

physicians. The nursing staff, therefore, is key to patient satisfaction (p. 128).

...Nurses who are attentive to patients' needs are more likely to have patients who are satisfied with their stay and who recommend the hospital to family and friends (Abramowitz et al., 1987, p. 129).

Although the patient's satisfaction has been correlated with his satisfaction with his nurses, no study has focused on nurses satisfaction with their patients, despite the fact that they are "hospitalized" with their patients.

If interaction with patients is important to nurses but discouraged in that hospital or ward, morale may improve by increasing opportunities for such interaction. Hospitals may be made more humane places for nurses and their patients if these interactions are encouraged. Differences in morale attributed to institutional structure changes may be explained by enhanced nurse patient interaction. It is possible that the morale improvements registered when primary nursing is implemented can be attributed in part to increased patient nurse interaction.

### Criteria

The null hypothesis is that Tripler nurses do not

consider interaction with patients an important satisfier in comparison with pay, autonomy, task requirements, organization policy, professional status, or interaction with professionals. It will be last in the paired comparisons.

#### Assumptions

1. The Stamps and Piedmonte nurse satisfaction questionnaire (1986) measures nurse satisfaction (see Appendix A).

2. Improving nurses' satisfaction will improve the work environment for the nurses and may improve the experience of receiving care for patients.

#### Limitations

There are differences between military and civilian hospitals that may limit comparability of results. For example, within the questionnaire being employed, question 30 reads, "There is a lot of rank consciousness on my unit, with nursing personnel seldom mingling with others of lower rank." Because fraternization with lower ranking personnel is against the Code of Military

Justice, this item may be interpreted very differently by a military nurse. Denial of rank consciousness could be a dissatisfier for a military nurse. The question may not elicit valid results from military hospitals. Comparison of selected item results with norms reported by Stamps and Piedmonte (1986) may not be generalizable. The study did not test if a military setting yields results differing from civilian settings.

#### Methodology

To test the hypothesis that the relationship between a nurse and a patient is a highly valued satisfier consistent with social network theory, an existing nationally normalized nurse satisfaction questionnaire was used with additional questions about patients.

The questionnaire developed by Stamps and Piedmonte (1986) allows two dimensions of questions to be asked about nurse satisfaction: Part A, the paired comparisons, ask how do these nurses rank specific satisfiers? and Part B, the attitude scale, asks how adequately does the particular hospital provide those satisfiers? These two dimensions are in keeping with

the theory of Herzberg, et al. (1959) that what is both highly valued and expected is a satisfier.

Nurse-patient relationships are not always contributory to satisfaction; patients can be powerful stressors for the nurse. Furthermore, the degree of illness of the patient may not be the main stressor; difficult patients can range from unresponsive to extremely demanding. In addition to the complexity of factors the patient brings to the relationship, family members frequently figure in the nurse's day. Socially incompetent patients with demanding or grateful family members present may either exhaust or support a nurse. Therefore, assessment of the importance of interaction should include reference to the patient's family.

Future studies can examine the variation among specific specialties or wards. Such variation may reflect the patient characteristic of social competence, in keeping with social network theory. First, a correlation must be shown between nurses' work satisfaction and patient interaction.

## II. Discussion of Objectives

### Research Question

Do nurses at Tripler Army Medical Center identify interaction with patients or patients' families as an important component of work satisfaction?

### Research Procedures

1. Questions were developed about interaction with patients for use in the questionnaire Part B attitude scale, with guidance from nursing research experts at the University of Hawaii.
2. Computer support was obtained to tabulate and calculate the results. Stamps and Piedmonte's instruction (1986) for programming a personal computer for those functions was used.
3. Stamps and Piedmonte's standardized questionnaire (1986) was modified by adding "Interaction with Patients" as the seventh factor in Part A and by adding questions relating to interaction with patients in Part B.
4. The modified questionnaire was distributed to all Department of Nursing staff employed by Tripler Army

Medical Center and was returned to the researcher during the month-long study interval.

5. The value nurses in the study population placed on patient interaction in relation to the other six satisfiers was calculated.

6. The satisfaction values were evaluated in terms of the demographics of respondents.

7. Possible implications for nursing administration and institutional leadership were explored.

For the Part B attitude scale, questions dealing with the patient-nurse interaction were written according to the Likert format, with half the items worded negatively and half worded positively and added to the selected questionnaire. Questions 16, 32 and 48 were written so that the most satisfied nurse would strongly agree with the statements. Correspondingly, the expected response of the most satisfied nurse was scored seven, and the least satisfied nurse's response was scored one, as shown below:

	DISAGREE				AGREE		
16. I enjoy the patients here.	1	2	3	4	5	6	7
32. I have sufficient time for direct patient care.	1	2	3	4	5	6	7



48. Visits to the hospital by family members of a patient can make my shift much better or much worse.

1 2 3 4 5 6 7

Questions 22 and 47 were written so that the most satisfied nurse would strongly disagree with the statements so the scoring reversed the expected answers of a satisfied nurse.

DISAGREE      AGREE

22. It is difficult to care for the patients as people here.

7 6 5 4 3 2 1

47. Working with unresponsive patients seems to shorten my shift.

7 6 5 4 3 2 1

The Stamps and Piedmonte nurse satisfaction questionnaire (1986) with the additional patient interaction questions was distributed by the researcher (See Appendix B). Each nurse found in his or her mailbox a copy of the questionnaire and a brief cover letter requesting the nurse's cooperation in the study, emphasizing confidentiality and affirming that it was an officially sanctioned study that might have an impact on working conditions. Nurses were asked to give

demographic information about their current positions as part of the questionnaire. The completed questionnaires were picked up by or forwarded to the researcher.

After the questionnaires were collected, responses were scored and summarized according to the procedures in Stamps and Piedmonte (1986). Each nursing ward was scored separately. Unlike the wards, individual clinics at Tripler often have fewer than five nurses, so confidentiality was protected by grouping all clinics into the ambulatory section.

Part A, the paired comparisons, was scored as described by Stamps and Piedmonte (1986). A frequency matrix was set up for each subsample showing the number of times respondents chose one factor of the pair over the other. The seven variables were arrayed along the horizontal and vertical axes as shown in Figure 2.

On the horizontal axis is the factor chosen as more important in the paired comparisons, on the vertical axis is the less important. The number in each block is the number of respondents who chose the factor on the horizontal axis over the factor to the right on the vertical axis. In Figure 2 there were 66 nurses who returned questionnaires; 27 of them rated pay over

autonomy, 33 rated autonomy over pay, and 6 did not respond to that pair of factors.

### FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	33	23	14	22	33	18	→PAY
27	—	25	17	20	41	24	→AUT
39	34	—	7	30	55	26	→TSK
44	40	50	—	46	49	42	→POL <u>Less Important</u>
35	41	32	16	—	38	23	→STA
27	19	7	8	23	—	9	→IPA
41	33	31	18	34	50	—	→IPR

Figure 2. Example Frequency Matrix

Next, a proportion matrix was created from each frequency matrix by dividing the frequencies by the number of respondents. For the above example,  $27/66 = .41$  was entered in under the pay column and  $33/66 = .50$  under the autonomy column (Figure 3).

**PROPORTION MATRIX**

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
-	.50	.35	.21	.33	.50	.27	↔PAY
.41	-	.38	.26	.30	.62	.36	↔AUT
.59	.52	-	.11	.45	.83	.39	↔TSK
.67	.61	.76	-	.70	.74	.64	↔POL <u>Less Important</u>
.53	.62	.48	.24	-	.58	.35	↔STA
.41	.29	.11	.12	.35	-	.14	↔IPA
.62	.50	.47	.27	.52	.76	-	↔IPR
3.23	3.04	2.55	1.21	2.65	4.03	2.15	← <u>Proportional Preference</u>

Figure 3. Example Proportion Matrix

Below each proportion matrix is the total for each column, which indicates the ranking or relative importance placed on each of the seven factors by the respondents.

Appendix A also gives the procedures for scoring the Part B attitude scale. For this study, their six components were augmented by a seventh--interaction with patients. A final satisfaction score was generated and listed by nursing specialty.

Finally, the Stamps and Piedmont procedure (1986) was used to calculate a Z matrix for the overall sample,

showing the component weighting coefficient, "which theoretically represents the scale value for each component in terms of its deviation from the mean value of all the scale values" (p. 78).

The results reflected both how nurses at Tripler rank the seven components of work satisfaction in importance and how they perceive those factors at Tripler.

Questions that were answered include the following:

1. How do nurses rank interaction with patients and patients' families in importance compared with the other satisfaction factors of pay, autonomy, task requirements, organizational policies, professional status, and interaction with professionals?

2. Is an Army hospital within the range of national norms established by the Stamps and Piedmonte Nurse Satisfaction Questionnaire Part A? (Refer to Stamps and Piedmonte Tables 2.4 and 2.5, reproduced in Appendix A.)

3. Are there variations in response by nursing specialty?

4. Do the hours of direct patient care provided explain any variance in satisfaction?

5. Do nurses with primarily administrative responsibilities view satisfiers the same as patient care nurses?

### Subjects

The subjects of the study were all 882 military and civilian staff assigned to the Department of Nursing at Tripler Army Medical Center at the end of March 1989. The staff includes civilian nursing assistants, their counterparts in the Army known as 91As or corpsmen, ward clerks, licensed practical nurses, their Army counterparts known as 91Cs, and military and civilian registered nurses. There are also some administrators and specialists in the department managing the approximately 35 million dollars of salary, equipment and supplies of nursing.

The department provides nursing care in a 54 year old, 1.2 million square foot facility serving about 420 daily inpatients and hundreds of out patients. These patients are active duty soldiers, sailors, airmen and coast guardsmen, their families, retirees, Veterans Administration beneficiaries and islanders of trust territories. The propensity of American military men to

marry women wherever the men are stationed brings further cultural heterogeneity to the patient mix of Tripler. These factors complicate nursing care; nurses must evaluate patients carefully to find out how to tailor routine. For example, a patient with a Spanish surname may be Filipino and prefer Tripler's "island diet," Puerto Rican and speak Spanish, or be from New York. The potential for problems in so large a facility with so many different kinds of people is nearly unlimited. Tripler's nurses struggle to know each patient as an individual to minimize misunderstandings and catch institutional malfunctions.

The entire Department of Nursing staff was given the questionnaire, except those on temporary duty elsewhere, sick leave, regular leave, or subject to end tour of service and clearing the post. Each questionnaire was stapled between a cover letter and a large envelope addressed to the researcher. The cover letter provided respondents with a convenient opportunity to request the results: 80 respondents did, in fact, request the results and were sent an abstract of this paper.

Eight hundred and eighty-two questionnaires were distributed and 545 returned. Although there was little

institutional pressure placed in the study, the 62% response rate is gratifyingly high. Other researchers should consider replicating the offer to return to subjects the fruit of their labor.

All returned questionnaires were used, but some respondents chose not to identify themselves by age, gender, military status, or other category. The computer program allowed subsamples to be reported out separately. Table 1 lists numbers of questionnaires returned without response to specific demographic questions.



Table 1

Non Responses To Demographic Questions

Demographic question	Non-responses
Age	10
Sex	9
Years in nursing	43
Military status	2
Percent of time devoted to patient care	16
Initial nursing program	14
Level of nursing education	16
Primary responsibility	4
Specialty	6

### III. Discussion of Results

#### Demographics of Respondents

The respondents, 62% of the people in the Department of Nursing at Tripler Army Medical Center, Hawaii, were asked to complete a demographic data sheet. Their responses are tabulated in Appendix C. Thirty-four percent were male, 64% female. They had been in nursing from zero to 43 years, with 3 years the mode, 8 years the median, and 10 years the mean; the few pros with many years pulled the mean away from the median. The military represented 69% of the respondents, and civilians 30%.

The question of a relationship between direct contact with patients and satisfaction had made it necessary to ask about time devoted to patient care. The Army Indirect Care Study defines Direct Care Time as: "Activities that take place in the presence of the patient and/or family (usually at the patient's bedside)." Twenty-three percent of the respondents spent less than 20% their time with patients. Thirteen percent claimed 20 to 40% of their time in direct patient care. Twenty-three percent reported 40 to 60%

patient care. And 37% claimed more than 60% of their time was spent in direct patient care. This is an interesting response pattern.

The direct care times varied from 22% in obstetrics/gynecology to 37% in the nursery. If all Tripler's nurses worked in the nursery and provided the theoretical maximum of 37% of their time in direct care, 60% of them would still have claimed an unrealistically high proportion of their time in direct patient care. It is possible that the questionnaire was unclear. It is also possible that nurses perceive direct patient care as being of such importance that they subjectively over-report the time spent with patients. These points deserve further study.

The staff of the Department of Nursing includes registered nurses, licensed vocational nurses (LPNs), diploma nurses, ward clerks and aides. They claimed levels of nursing education as shown in Table 2.

When asked about primary responsibility, 67% claimed patient care and 33% said other than patient care. The specialties in which they worked are listed in Table 3

Table 2

Percentages of Respondents by Current Level of Nursing Education

Level of Education	Percent	Comments
Military	20.4	Mostly medics or aides
Associate degree	4.6	Mostly RNs
Diploma	2.9	RNs
BSN	28.1	Mostly Army officers
MA in Nursing	5.3	RNs
Grad degree o/t Nsg	6.1	Mostly RNs
Other	6.4	
Ward Clerk	1.8	
LPN	14.7	
Nursing Assistant	6.8	
Not given	2.9	
Total	100.0	

Table 3

Percentages of Respondents by Specialty

Specialty	Percent
Medical	11.0
Surgical	17.8
Pediatrics	6.4
Ambulatory care	4.4
Obstetrics	9.0
Operating room	6.2
Administration	8.4
Anesthesia	2.6
Psychiatry	5.1
Intensive care	9.5
Central Material Service	4.8
Community Health Nursing	0.4
Other	13.2
Total	100.0

Summary of Responses to Parts A and B

A version of the Stamps and Piedmonte nurses' work satisfaction questionnaire modified to see how interaction with patients rated as a factor in nurse satisfaction (Appendix B) was distributed to Tripler nurses. Of the 882 sent out, 545 were returned, for a rate of 62%. The respondents overwhelmingly affirmed patient interaction as a major factor. It was, in fact, rated the most important in the overall sample. This dramatic result is the first large scale study to show that nurses care deeply about patients.

The 545 returned questionnaires were individually keyed onto an IBM 1.2 computer and analyzed in accordance with the Stamps and Piedmonte procedure (Appendix A). The results failed to support the null hypothesis that other satisfiers in the study would rank above interaction with patients.

The paired comparison Part A of the questionnaire yielded for Tripler Department of Nursing the results shown in Table 4.

Table 4

Ranking of Factors in the Part A Paired Comparisons by Sample

Sample	N	IPA	PAY	AUT	STA	IPR	TSK	POL
Overall	545	1	2	3	4	5	6	7
Sex								
Male	188	3	1	2	4	6	5	7
Female	348	1	3	2	4	5	6	7
Military status								
Military	378	3	2	1	4	5	6	7
Civilian	165	1	2	3	4	6	5	7
Time devoted to direct patient care								
Less than 20%	128	3	2	1	4	6	5	7
20% to 40%	72	1	2	3	4	5	6	7
40% to 60%	126	1	3	2	4	5	6	7
More than 60%	203	1	2	3	4	5	6	7
Initial nursing program								
Military	177	3	2	1	5	6	4	7
Assoc degree	30	2	3	1	4	6	5	7
Diploma	76	1	3	2	4	5	6	7
BSN	182	3	2	1	4	5	6	7
Other	66	1	2	3	4	6	5	7

Table 4--continued

Sample	N	IPA	PAY	AUT	STA	IPR	TSK	POL
Level of nursing education								
Military	111	3	1	2	5	6	4	7
Assoc degree	25	1	4	2	3	5	6	7
Diploma	16	1	2	3	4	6	5	7
BSN	153	3	1	2	4	5	6	7
Masters nsng	29	4	2	1	3	5	6	7
Grad o/t nursing	33	2	4	1	3	5	6	7
Ward clerk	10	3	1	4	6	5	2	7
LPN	80	1	2	3	4	6	5	7
Nursing asst	37	1	3	6	5	4	2	7
Primary responsibility								
Patient care	363	1	2	3	4	5	6	7
O/t pat care	178	3	2	1	4	6	5	7



Table 4--continued

Sample	N	IPA	PAY	AUT	STA	IPR	TSK	POL
Specialty								
Medical	60	1	2	3	5	6	4	7
Surgical	97	2	1	3	4	6	5	7
Pediatrics	35	1	4	2	3	6	5	7
Amb care	24	1	3	2	3	5	6	7
Ob/gyn	49	1	3	2	4	5	6	7
Oper room	34	3	2	1	4	5	6	7
Admin	46	6	2	1	3	5	4	7
Anesthesia	14	3	1	2	4	5	7	6
Psychiatry	28	1	3	2	4	5	6	7
Intens care	52	2	1	3	4	5	6	7
CMS	26	6	3	2	7	4	1	4

N = number of respondents in subsample; IPA = interaction with patients; PAY = pay; AUT = autonomy; STA = professional status; IPR = interaction with professionals; TSK = task requirements; POL = organizational policies.

The single most striking result of this study is the importance respondents gave to interaction with patients. This was defined in Part A of the questionnaire as "direct verbal or non verbal contact with patients or their families." Against the national standard six factors of pay, autonomy, task

requirements, organizational policies, professional status, and interaction with professionals, Tripler nurses placed it first.

The responses of Tripler nurses varied in several ways from the results of 25 studies reported in Stamps and Piedmonte's Tables 2.4 and 2.5 (see Appendix A). In none of those studies was pay among the three most important factors (19 of the 25 placed it in the lowest two), but at Tripler nurses placed it second, not counting interaction with patients, which was not used as a factor in the other studies. The relatively high importance placed on pay by Tripler staff may reflect the high cost of living in Honolulu. Lower paid staff considered pay more important than higher paid staff.

Tripler's ranking of factors did not match the ranking in any of the other 25 studies, including one study of a VA medical center. In 13 of the studies reported by Stamps and Piedmonte, hospital nurses agreed with Tripler nurses that organizational policies are least important. Fifteen agreed with Tripler that autonomy is most important, again not counting interaction with patients.

More detailed summaries of the responses to the questionnaire are given in Appendices C, D and E. Table

5 shows the overall component weighting coefficient which, according to Stamps and Piedmonte (1986), "theoretically represents the scale value for each component in terms of its deviation from the mean value of all the scale values" (p. 78).

Table 6 shows satisfaction with interaction with patients by nursing specialty at Tripler, in order of most to least.

Table 5

Overall Weighting Coefficient for Factors Affecting Nurses' Job Satisfaction

Rank	Factor	Component weighting coefficient
1	Interaction with patients	3.44
2	Autonomy	3.40
3	Pay	3.39
4	Professional status	3.16
5	Interaction with professionals	2.92
6	Task requirements	2.91
7	Organizational policies	2.55

Table 6

Satisfaction with Interaction with Patients by Nursing Specialty,  
from Most to Least

Rank	Specialty	Average	Number of respondents
1	Community Health	5.75	2
2	OB/Gyn	4.75	49
3	Surgical	4.67	96
4	Pediatrics	4.65	35
5	Intensive Care	4.63	52
6	Administration	4.56	46
7	Ambulatory Care	4.47	24
8	Psychiatry	4.45	28
9	Medical	4.31	57
10	Anesthesia	4.05	34
11	Operating Room	4.04	14
12	CMS	3.91	24

Overall Average = 4.47

Standard Deviation = 0.82

Note that the specialty which traditionally affords nurses the least contact with patients (Central Material Services) is last, whereas the specialty that affords the most contact with socially competent patients

(Community Health) is first. This doubly confirms the importance of interaction with patients.

### Conclusions

The results of this questionnaire suggest that interaction with patients is highly valued by Tripler nurses of all levels of education. Although many subsamples of the nursing staff at Tripler valued interaction with patients less than autonomy or pay, nearly all ranked it above professional status, interaction with other professionals, task requirements, and organizational policies.

Several issues are raised by these results:

1. It is peculiar in and of itself that the literature on nursing satisfaction has paid so little attention to the relationship between nurse and patient. Is this because so much of the literature originates in industrial models of work and is tasked with necessarily inanimate machines? Nurses' relationships with their husbands, coworkers, supervisors and physicians have been looked at in assessing nurse satisfaction, but oddly enough not the relationship to the patient.

2. Nurses complaining of over work and burnout frequently express the pain of failing their patients. If other nurses value the interaction with patients as much as Tripler nurses, then the depth of pain from over work can be explained. Nurses may not complain of over work simply because they are tired. They may be experiencing the loss of highly valued relationships. If these relationships can be preserved, if nurses can still have interaction with patients, perhaps heavy workloads can be tolerated. Strategies that accommodate the shortage of nurses while supporting patient interaction must be sought. It appears that administrators should emphasize nurse extenders in areas of indirect care rather than direct care.

3. The structure of hospital bed-side nursing is changing in response to increased patient severity of illness, an inadequate supply of nurses, greater financial accountability, and increased competition among hospitals. In the recent past, hospitals colluded with others in the same area to keep salaries comparable. Now hospitals compete with multiple nursing health agencies and pools as buyers of nursing services. There is experimentation with team nursing, managed care, primary care and task centered models. Such

radical solutions as developing still another nurse substitute have been suggested by the American Medical Association.

Is part of the problem the difficulty in describing the function of a nurse? Leaving aside the categories of nurses aid and licensed vocational nurse, the function of a professional nurse is crucial to the function of hospitals. Yet the gap between professional nursing jargon and hospital administration appears to be largely unbridged. Administrators unclear about nursing are poorly prepared to manage it.

When professional nurses are functioning at their highest level, they may not look like traditional nurses to an administrator. The professional nurse's crucial function has changed with the development of the medical institution. Nurses now organize the risky resources of a hospital to treat the patient. Physicians diagnose and treat disease. Nurses understand diseases, treatments, and organize the institutional intrusions. The professional nurse develops three models to do this.

First there is a picture of the patient as he presents himself. Nurses call this the baseline assessment. Second there is the picture of the patient as he can hopefully be when he is discharged--the

discharge plan, in jargon. And third there is the horrific picture of calamities stalking this patient, that risk management will seek to thwart. Nursing assessment is required to create all of these pictures of the patient. And these assessments require contact with the patient.

What are the implications for nursing administration and institutional leadership? Administrators' idea of nursing care is largely nurturing and consists of physical care. Some of that care can be properly delegated to nurse substitutes. But the professional discipline of nursing involves creating those three models for each patient and orchestrating the institution of the hospital to get the patient from admission to ideal discharge condition. Nurses cannot do that without direct patient interaction.

Furthermore, the orchestration of care requires the tools of communication. Yet few hospitals provide cordless telephones or call forwarding for their nurses. Consequently, nurses constantly walk back to the desk to take telephone calls to coordinate their work with the rest of the health care system. A study of how nurses spend their time at 857 hospitals found that "The



largest chunk of time--52%--is consumed in housekeeping details, answering phones and ordering supplies" ("Misuse of RNs," 1989, p. 1223). The professional nurse belongs near the patient. Communications, supplies, information and records should be at the bedside.

Such innovations as nurse servers, pre-stocked closets and supply drawers, clip-on collar phones, bedside charting, dictated charting, and beefed up administrative support may increase nurse interaction with patients, provide greater satisfaction for patients and nurses, and bring the structure of nursing work more into concordance with the responsibilities of modern nursing.

By including interaction with patients in the Stamps and Piedmonte tool, this study has documented the high value nurses at Tripler place on this factor. Enhancing a highly valued satisfier should have a positive impact on the nursing staff.

Finally, other nurse satisfaction studies should consider including patient interaction. The possibility exists that a partial solution to the nursing shortage is to allow nurses to be kinder and gentler, less pulled

away from their patients' needs, and thereby better able to meet their own needs.

Appendix A  
Stamps & Piedmonte Questionnaire  
and Scoring Procedures

The following pages of this appendix are copied from Nurses and Work Satisfaction by Stamps and Piedmonte (1986). Their Appendix A describes the scoring procedures used for this study, with appropriate modifications necessitated by the addition of the seventh factor of interaction with patients.

Also included from Nurses and Work Satisfaction are Tables 2.4 and 2.5, which summarize comparable studies conducted at other medical institutions.

The Stamps and Piedmonte study of nurse job satisfaction is perhaps the most thorough published. It has become something of a landmark and has been cited by many journal articles since 1986. However, none of those articles have addressed or examined the satisfaction nurses get from interaction with patients.

# Appendix A

## Scoring Procedures: Hand Calculations

### Introduction

This first appendix contains the complete manual for the scoring procedures for both Part A (Paired Comparisons) and Part B (Likert scale). As noted in the text, these scoring procedures have been significantly modified from previous versions.

For those who intend to score the questionnaire by hand, this appendix gives all the necessary details. For those who plan to use some kind of computer assistance, the next two appendices will give programs for both mainframe and personal computer users. It is strongly suggested that the computer users also read this first appendix carefully so they will understand the nature of the scoring procedure itself.

It is very important to follow these scoring procedures carefully, since they have been specifically designed for the new 44-item revised questionnaire presented in chapter 3 of this volume. Any deviation will result in inaccurate scoring of the questionnaire.

### Description of Scoring Procedures

There are three basic steps involved in the computation of the IWS. The first has to do with the Paired Comparisons (Part A) that measure the expectations of the respondents; the second concerns calculations from the attitude scale that measures current level of satisfaction (Part B); and the third step is the calculation of the IWS, a weighted average. A detailed description of these three steps is given here.

### *Step 1: Scoring Part A (Paired Comparisons)*

The first part of the questionnaire is based theoretically on Thurstone's Law of Comparative Judgments, as described by Edwards.<sup>1</sup>

The sample tables included here are based on a set of data from 98 respondents. Theoretical derivations for this can be found in Edwards, chapter 2.<sup>2</sup> A recent article using this technique that may also be helpful is McKenna, Hunt, and McEwen.<sup>3</sup>

**A. Table A.1: Frequency Matrix.** Table A.1 shows the frequency with which the respondents choose one component of each pair over the other. In our case, there are  $n(n-1)/2$  possible pairs, that is, 15 comparisons [6 pairs  $(6-1)/2$ ] to be made. In each case, the respondent is asked to choose which member of each pair is the more favorable. Therefore, this table, which reflects original data from 98 respondents, consists of the frequencies corresponding to the number of times that each component is judged more favorably than its matched pair. Therefore, in table A.1, the 32 in the first column indicates the frequency with which Pay was judged more favorable than Autonomy. (It is customary in matrix rotation to give the row comparison first. However, in scaling, it is more convenient to represent the most favored in the columns. Therefore, all these tables are set up with the most favorable being the columns.) The diagonal is always assumed to be 50 percent. Therefore, it is represented as 0.

**Table A.1** Frequency Matrix  $N = 98$ 

Least Favored	Most Favored					
	Pay	Autonomy	Task Requirements	Organizational Policies	Professional Status	Interaction
Pay	—	66	36	22	43	36
Autonomy	32	—	23	12	26	26
Task Requirements	62	74	—	19	52	44
Organizational Policies	76	86	79	—	78	70
Professional Status	55	70	46	19	—	42
Interaction	62	71	54	28	56	—

**B. Table A.2: Proportion Matrix.** Table A.2 is created from table A.1 by taking the reciprocal of the total number of individuals doing the judgments,  $(1/n)$ , in this case  $1/98$  (.0102).

Each of the cell values in table A.1 is multiplied by .0102 to obtain the cell values in the proportion matrix.

**Table A.2** Proportion Matrix  $N = 98$ 

Least Favored	Most Favored					
	Pay	Autonomy	Task Requirements	Organizational Policies	Professional Status	Interaction
Pay	—	.673	.367	.224	.439	.367
Autonomy	.327	—	.237	.122	.271	.268
Task Requirements	.633	.763	—	.194	.531	.449
Organizational Policies	.776	.878	.806	—	.804	.714
Professional Status	.561	.729	.469	.196	—	.429
Interaction	.633	.732	.551	.286	.571	—

**C. Table A.3: Obtaining the Component Weighting Coefficient.** The scale value for each component or the component weighting coefficient is obtained through table A.3, which is a Z matrix of normal deviates. As can be seen from this table, values below the diagonal are represented by negative signs. Also, the values obtained for this table are not independent of one another. Both of these are a function of Thurstone's Law of

Comparative Judgments. The negative sign indicates less favorable ratings, that is, ratings of less than .500, which are the assumed rankings of the diagonal. Those Z values above the diagonal are relatively more favorable; thus their signs are positive. This is because the Z values represent the scale separation values of the rankings of the components, an important theoretical concept in Edwards's work.

Table A.3 Z Matrix Showing the Component Weighting Coefficient

Least Favored	Most Favored					
	Organizational Policies	Interaction	Task Requirements	Professional Status	Pay	Autonomy
Organizational Policies	—	.565	.863	.856	.759	1.165
Interaction	-.565	—	.128	.179	.340	.619
Task Requirements	-.863	-.128	—	.078	.340	.716
Professional Status	-.856	-.179	-.078	—	.154	.610
Pay	-.759	-.340	-.340	-.154	—	.448
Autonomy	-1.165	-.619	-.716	-.610	-.448	—
Sum:	-4.208	-.701	-.139	.349	1.145	3.558
Mean:	-.7013	-.1168	-.023	.058	.1911	.593
Add +3.100 to get component weighting coefficient:	2.398	2.984	3.07	3.15	3.29	3.693

The first row values can be calculated from the first column, but with an opposite sign, as shown below:

	Organizational Policies	Interaction	Task Requirements	Professional Status	Pay	Autonomy
Organizational Policies	—	.565	.863	.856	.759	1.165
Interaction	-.565					
Task Requirements	-.863					
Professional Status	-.856					
Pay	-.759					
Autonomy	-1.165					

The first row and column have been rearranged in an ascending order for convenience. This does not affect the computation but it makes visualizing the data easier.

The Z values for table A.3 are obtained by using Edwards' table (table A.4). The first two digits are given on the left side of the table, and the third digit is represented across the top. Each column of Z values is summed up and divided by 6 to obtain a mean of Z values, as shown in the bottom of table A.3. The last step in table A.3 is to add an arbitrary constant of +3.100 to each mean. The purpose of this is to eliminate the negative signs and eliminate any zero values, for ease in later computation. As table A.4 shows, -3.090 is the most negative number obtained from the Z table. Adding the constant eliminates the sign without having one of the components represented by zero.

This last numerical value on table A.3 is the

*component weighting coefficient*, which theoretically represents the scale value for each component in terms of its deviation from the mean of all the scale values. In this way, the component weighting coefficient for each component is derived from its comparison with all others. Statements with negative scale values are judged to be less favorable than the average of the scale values of all statements. Those with positive scale values are judged to be more favorable than the average. Adding the constant to the deviation scale values does not change the distance between any of the scale values nor the relative location of them on the psychological continuum.

The component weighting coefficient is the summary number for Part A. It is used to rank the components in order of importance, and this value is then used in computing the IWS.

Table A.4 Table of Normal Deviates  $z$  Corresponding to Proportions  $p$  of a Dichotomized Unit Normal Distribution

$p$	0	1	2	3	4	5	6	7	8	9
.99	2.326	2.366	2.409	2.457	2.512	2.576	2.652	2.746	2.878	3.090
.98	2.064	2.076	2.097	2.120	2.144	2.170	2.197	2.226	2.267	2.290
.97	1.881	1.896	1.911	1.927	1.943	1.960	1.977	1.995	2.014	2.034
.96	1.751	1.762	1.774	1.787	1.799	1.812	1.825	1.838	1.852	1.866
.95	1.645	1.655	1.665	1.675	1.685	1.695	1.706	1.717	1.728	1.739
.94	1.555	1.563	1.572	1.580	1.589	1.598	1.607	1.616	1.626	1.635
.93	1.476	1.483	1.491	1.499	1.506	1.514	1.522	1.530	1.538	1.546
.92	1.405	1.412	1.419	1.426	1.433	1.440	1.447	1.454	1.461	1.468
.91	1.341	1.347	1.353	1.359	1.365	1.372	1.379	1.385	1.392	1.398
.90	1.282	1.287	1.293	1.298	1.305	1.311	1.317	1.323	1.329	1.335
.89	1.227	1.232	1.237	1.243	1.248	1.254	1.259	1.265	1.270	1.276
.88	1.176	1.180	1.185	1.190	1.195	1.200	1.206	1.211	1.216	1.221
.87	1.126	1.131	1.136	1.141	1.146	1.150	1.155	1.160	1.165	1.170
.86	1.080	1.085	1.089	1.094	1.098	1.103	1.108	1.112	1.117	1.122
.85	1.036	1.041	1.045	1.049	1.054	1.058	1.063	1.067	1.071	1.076
.84	.994	.999	1.003	1.007	1.011	1.015	1.019	1.024	1.028	1.032
.83	.954	.958	.962	.966	.970	.974	.978	.982	.986	.990
.82	.915	.919	.923	.927	.931	.935	.938	.942	.946	.950
.81	.878	.882	.885	.889	.893	.896	.899	.904	.908	.912
.80	.842	.845	.849	.852	.856	.859	.863	.867	.871	.874
.79	.806	.810	.813	.817	.820	.824	.827	.831	.834	.838
.78	.772	.776	.779	.782	.786	.789	.793	.796	.800	.803
.77	.739	.742	.745	.749	.752	.755	.759	.762	.765	.769
.76	.706	.710	.713	.716	.719	.722	.726	.729	.732	.736
.75	.674	.678	.681	.684	.687	.690	.693	.697	.700	.703
.74	.643	.646	.649	.652	.655	.658	.662	.665	.668	.671
.73	.613	.616	.619	.622	.625	.628	.631	.634	.637	.640
.72	.583	.586	.589	.592	.595	.598	.601	.604	.607	.610
.71	.553	.556	.559	.562	.565	.568	.571	.574	.577	.580
.70	.524	.527	.530	.533	.536	.539	.542	.545	.548	.550
.69	.496	.499	.502	.504	.507	.510	.513	.516	.519	.522
.68	.468	.470	.473	.476	.479	.482	.485	.487	.490	.493
.67	.440	.443	.445	.448	.451	.454	.457	.459	.462	.465
.66	.412	.415	.418	.421	.423	.426	.429	.432	.434	.437
.65	.385	.388	.391	.393	.396	.399	.402	.404	.407	.410
.64	.358	.361	.364	.366	.369	.372	.375	.377	.380	.383
.63	.332	.335	.337	.340	.342	.345	.348	.350	.353	.356
.62	.306	.308	.311	.313	.316	.319	.321	.324	.327	.329
.61	.279	.282	.285	.287	.290	.292	.295	.298	.300	.303
.60	.253	.256	.259	.261	.264	.266	.269	.272	.274	.277
.59	.228	.230	.233	.235	.238	.240	.243	.246	.248	.251
.58	.202	.204	.207	.210	.212	.215	.217	.220	.222	.225
.57	.176	.179	.181	.184	.187	.189	.192	.194	.197	.199
.56	.151	.154	.156	.159	.161	.164	.166	.168	.171	.173
.55	.126	.128	.130	.133	.135	.138	.141	.143	.145	.146
.54	.100	.103	.105	.108	.111	.113	.116	.118	.121	.123
.53	.075	.078	.080	.083	.085	.088	.090	.093	.095	.098
.52	.050	.053	.055	.058	.060	.063	.065	.068	.070	.073
.51	.025	.028	.030	.033	.035	.038	.040	.043	.045	.048
.50	.000	.003	.005	.008	.010	.013	.015	.018	.020	.023

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### Step 2: Scoring Part B (Attitude Scale)

The scoring of the attitude items is straightforward. First, each item is scored from one to seven points, on a scale from Strongly Disagree (1) to Strongly Agree (7). Since the attitude scale is con-

structed according to the Likert format, half of the items are worded negatively and half are worded positively. All those items that are worded negatively invite a "disagree" response. In order that the Likert scale be a simple summed scale, it is necessary to reverse the scoring on these negatively worded items, as demonstrated below:

ITEM: *My present salary is satisfactory.* (Positively worded item; desirable response is agreement.)

Strongly Disagree	Disagree	Moderately Disagree	Undecided	Moderately Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

ITEM: *I am sometimes required to do things for patients that are against my better judgment.* (Negatively worded item; desirable response is disagreement.)

Strongly Disagree	Disagree	Moderately Disagree	Undecided	Moderately Agree	Agree	Strongly Agree
7	6	5	4	3	2	1

Following this model allows two things: first, the scale itself contains a definition of what a high level of satisfaction is. This comes from the wording and invited or expected direction of the response. This is then an ideal or criterion for a high level of satisfaction. A satisfied nurse is expected to agree with the first item above and disagree with the second item. Second, the scoring is reversed. By always ensuring the maximum score (that is, seven) on any one item for the "most satisfied" answer (regardless of whether it is an agree or disagree answer), the ability to sum the scores is retained. The higher score always represents a more positive attitude or, in this case, a higher level of satisfaction. This allows for easy comparison of groups. Although this does represent a somewhat arbitrary standard or ideal, this is the common approach of the Likert technique. The direction of scoring for each item is given in table A.5.

Each of the six components has from six to ten items, as noted below:

— Pay	6 items, range 6-42
— Professional Status	7 items, range 7-49
— Autonomy	8 items, range 8-56
— Organizational Policies	7 items, range 7-49
— Interaction	10 items, range 10-70
— Task Requirements	6 items, range 6-42

The Interaction component is the only component that is intended to be subdivided. Five of the items measure Nurse-Nurse interaction and five measure Physician-Nurse interaction. A total mean component score and an adjusted component mean score

should be developed, as well as two specific sub-component scores.

The items measuring each of the components and the direction of scoring are shown in table A.5.

There are four summary scores calculated from Part B (Likert scale) of the questionnaire. These include:

1. Total Scale Score. This is a simple summation (including reversal of scores) of all 44 attitude items and gives an overall score to use as a rough comparison. The range of total scores is from 44 to 308.
2. Total Scale Mean. A total mean score is derived by dividing the total scale score by the number of items (44).
3. Component Total Score. This is a summation of the scores of responses to those items measuring a specific component.
4. Component Mean Score. The mean or average of the score for each component is calculated by dividing the total component score by the number of items contained within that component.

### Step 3: Calculating the IWS

To calculate the final weighted value, the component weighting coefficient from Step 1 is multiplied by the mean score, that is, the fourth summary score from Step 2. This gives a weighted value for each of the components that considers both the level of importance and the current level of satisfaction (adjusted score, as in table 3.1).

In order to calculate one value for an overall IWS, the weighted values for each component are summed up and divided by six (the number of components). This will give each respondent one total summary figure.



Table A.5 Items by Component and Direction of Scoring

Component	Direction of Scoring	
	Strongly Disagree	Strongly Agree
<i>Pay</i>		
1. My present salary is satisfactory.	1	7
8. Excluding myself, it is my impression that a lot of nursing service personnel at this hospital are dissatisfied with their pay.	7	1
14. Considering what is expected of nursing service personnel at this hospital, the pay we get is reasonable.	1	7
21. The present rate of increase in pay for nursing personnel at this hospital is not satisfactory.	7	1
32. From what I hear from and about nursing service personnel at other hospitals, we at this hospital are being fairly paid.	1	7
44. An upgrading of pay schedules for nursing personnel is needed at this hospital.	7	1
<i>Professional Status</i>		
2. Most people do not sufficiently appreciate the importance of nursing care to hospital patients.	1	7
9. Nursing is a long way from being recognized as a profession.	7	1
15. There is no doubt whatever in my mind that what I do on my job is really important.	1	7
27. What I do on my job doesn't add up to anything really significant.	7	1
34. It makes me proud to talk to other people about what I do on my job.	1	7
38. If I had the decision to make all over again, I would still go into nursing.	1	7
41. My particular job really doesn't require much skill or "know-how."	7	1
<i>Interaction</i>		
3. The nursing personnel on my service don't hesitate to pitch in and help one another when things get in a rush.	1	7
10. New employees are not quickly made to "feel at home" on my unit.	7	1
16. There is a good deal of teamwork and cooperation between various levels of nursing personnel on my service.	1	7
23. The nursing personnel on my service are not as friendly and outgoing as I would like.	7	1
28. There is a lot of "rank consciousness" on my unit. Nursing personnel seldom mingle with others of lower rank.	7	1
6. Physicians in general cooperate with the nursing staff on my unit.	1	7
19. There is a lot of teamwork between nurses and doctors on my unit.	1	7
35. I wish the physicians here would show more respect for the skill and knowledge of the nursing staff.	7	1
37. Physicians at this hospital generally understand and appreciate what the nursing staff does.	1	7
39. The physicians at this hospital look down too much on the nursing staff.	7	1
<i>Task Requirements</i>		
4. There is too much clerical and "paperwork" required of nursing personnel in this hospital.	7	1
11. I think I could do a better job if I didn't have so much to do all the time.	7	1
22. I am satisfied with the types of activities that I do on my job.	1	7
24. I have plenty of time and opportunity to discuss patient care problems with other nursing service personnel.	1	7
29. I have sufficient time for direct patient care.	1	7
36. I could deliver much better care if I had more time with each patient.	7	1
<i>Organizational Policies</i>		
5. The nursing staff has sufficient control over scheduling their own work shifts in my hospital.	1	7
12. There is a great gap between the administration of this hospital and the daily problems of the nursing service.	7	1
18. There are not enough opportunities for advancement of nursing personnel at this hospital.	7	1
25. There is ample opportunity for nursing staff to participate in the administrative decision-making process.	1	7

Continued

Table A.5 Continued

Component	Direction of Scoring	
	Strongly Disagree	Strongly Agree
33. Administrative decisions at this hospital interfere too much with patient care.	7	1
40. I have all the voice in planning policies and procedures for this hospital and my unit that I want.	1	7
42. The nursing administrators generally consult with the staff on daily problems and procedures.	1	7
<i>Autonomy</i>		
7. I feel that I am supervised more closely than is necessary.	7	1
13. I feel I have sufficient input into the program of care for each of my patients.	1	7
17. I have too much responsibility and not enough authority.	7	1
20. On my service, my supervisors make all the decisions. I have little control over my own work.	7	1
26. A great deal of independence is permitted, if not required, of me on my job.	1	7
30. I am sometimes frustrated because all of my activities seem programmed for me.	7	1
31. I am sometimes required to do things on my job that are against my better professional nursing judgement.	7	1
43. I have the freedom in my work to make important decisions as I see fit, and can count on my supervisors to back me up.	1	7

By using these instructions, all data needed for analysis of the scale can be calculated. Chapter 3 describes the ten categories of data and details the interpretation of these data.

The next two appendices give computer programs based on these scoring guidelines.

### Notes

<sup>1</sup>Edwards, A.L. *Techniques of Attitude Scale Construction*. New York: Appleton-Century-Crofts, 1957.

<sup>2</sup>*Ibid.*

<sup>3</sup>McKenna, S.D., S.M. Hunt, and J. McEwen. "Weighting the Seriousness of Perceived Health Problems Using Thurstone's Method of Paired Comparisons." *International Journal of Epidemiology* 10(1):93-97, 1981.

Table 2.4 Comparative Results of Part B (Likert Scale)

## A. Hospital-Based Nursing Staff Studies

2 Large Metropolitan Hospitals												
Piedmonte	Slavitt (1)	Ramirez-Sosa (2)	Bond (3)	Palmeri-Shea (5)		King (7)	Norman (8)	Kelly (10)				
				VA Medical Center								
				31 LPNs	98 RNs							

B. Other Health Professionals, Non-Hospital Settings

Stamps et al.		Ramirez-Sosa (2)		Shoppick (4)	Palmeri-Shea (5)		Troll (12)	Mackey (20)	
Ambulatory Setting					VA Medical Center		2 Geriatric Hospitals	2 Acute Care Agencies	
14 Nurses	8 Physicians	24 Support	16 Nurses	48 EMIT <sup>d</sup>	20 Social workers	86 Nurse aides	A 34 RNs & LPNs	B 36 RNs & LPNs	54 Bachelor's degree nurses
Professional Status	Autonomy	Autonomy	Professional Status	Professional Status	Pay	Professional Status	Autonomy	Professional Status	Professional Status
Interaction	Organizational Policies	Interaction	Interaction	Task Requirements	Professional Status	Interaction	Professional Status	Autonomy	Autonomy
Autonomy	Interaction	Professional Status	Organizational Policies	Autonomy	Autonomy	Autonomy	Task Requirements	Interaction	Interaction
Organizational Policies	Task Requirements	Task Requirements	Autonomy	Interaction	Interaction	Task Requirements	Organizational Policies	Organizational Policies	Organizational Policies
Task Requirements	Professional Status	Professional Status	Pay	Organizational Policies	Task Requirements	Pay	Pay	Task Requirements	Pay
Pay	Pay	Pay	Task Requirements	Pay	Organizational Policies	Organizational Policies	Organizational Policies	Task Requirements	Task Requirements

Note: Ranked in descending order.

<sup>a</sup>Intensive Care Nurses

<sup>b</sup>Surgical Nurses

Table 2.5 Summary of Rankings from Part B (Likert Scale) from Comparative Studies

Table 2.6 Summary of Rankings from Part B (Likert Scale) from Comparative Studies																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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Components					Community Hospital Nurses (1, 2, 3, 11, 19)				Old and New RNs and LPNs (8)				Nurse by Type (10)		Hospital Care (16)		VA Hospital Study (6)		(9)		Shriner's Hospital (6)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
					Professional Status		Interaction		Autonomy		Organizational Policies		Pay		Task Requirements		Old RN						New LPN		Med. Surg.		Ob. Gyn.		ER		ICU		OR		BSN		Dip.		NA		LPN		RN		SW																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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Appendix B  
Modified Questionnaire  
and Cover Letter

The following pages of this appendix are exact copies of the cover letter and questionnaire distributed by the researcher to all 882 military and civilian staff assigned to the Department of Nursing, Tripler Army Medical Center, Honolulu, Hawaii, at the end of March 1989. Respondents returned 545 completed questionnaires, for a return rate of 62%.



DEPARTMENT OF THE ARMY  
HEADQUARTERS, TRIPLER ARMY MEDICAL CENTER  
TRIPLER AMC, HAWAII 96859-5000



REPLY TO  
ATTENTION OF:

Nurse Methods  
Analyst

Dear

I have enclosed a questionnaire asking you about your work in nursing. The information you provide may be used for decision making and will be submitted as my graduate research paper. I will also provide the results to the Nursing Research Committee for them to publicize any way they feel is helpful, including Nursing Grand Rounds.

This questionnaire addresses aspects of nursing that are more or less satisfying. My goal is to expand the satisfying aspects and reduce the dissatisfying ones. Some of the questions are personal because satisfaction in nursing is linked to various personal factors; however, your confidentiality will be honored. Your cooperation is important and your participation will increase the impact this study will have. We may also help improve the future work environment in military hospitals. I will be delighted to answer questions about the study and can be reached at 433-5004.

Army Nurses at TAMC recently answered a similar questionnaire for CPT Gaylord. Please answer this one also. This is slightly different. We will share the results with you.

This study has been approved by COL Walsh, the Nursing Research Committee, and the Army Baylor Program in Health Care Administration. You are the best judge.

Please remove and retain this cover letter to preserve your anonymity. Place the completed questionnaire in the envelope provided and place it in distribution. Do not place your cover letter in the envelope with the questionnaire.

Thank you. If you are interested in the results of this study, please check the blank below and return the cover letter to me.

Sincerely,

*Kathleen L. Kelm*

Kathleen L. Kelm  
Captain, U.S. Army  
Nurse Methods Analyst

☒ Yes. I would like to know the results of this study.

## PERSONAL INFORMATION

1. Age \_\_\_\_\_
2. Male \_\_\_\_\_. Female \_\_\_\_\_.
3. Years in Nursing \_\_\_\_\_.
4. Are you now (check one)  
Military \_\_\_\_\_? Civilian \_\_\_\_\_?
5. How much of your time is devoted to providing direct patient care per week?  
Less than 20% \_\_\_\_\_. Between 20% and 40% \_\_\_\_\_.  
Between 40% and 60% \_\_\_\_\_. More than 60% \_\_\_\_\_.
6. What was your initial nursing program (check one)?  
Military training \_\_\_\_\_. Associate Degree \_\_\_\_\_.  
Diploma Program \_\_\_\_\_. Baccalaureate in Nursing \_\_\_\_\_.  
Other \_\_\_\_\_.
7. Your current level of Nursing Education:  
Military (please specify) \_\_\_\_\_. Associate Degree \_\_\_\_\_.  
Diploma \_\_\_\_\_. BSN \_\_\_\_\_.  
Masters in Nursing \_\_\_\_\_. Graduate Degree other than Nursing \_\_\_\_\_.  
Other \_\_\_\_\_. Ward clerk training \_\_\_\_\_.  
LPN \_\_\_\_\_. Nursing Assistant training \_\_\_\_\_.
8. Your primary responsibilities are (check one):  
Patient Care \_\_\_\_\_. Other \_\_\_\_\_.
9. In what specialty are you working? If more than one, check only the one that you feel best describes your work.
  - a. Medical \_\_\_\_\_.
  - b. Surgical \_\_\_\_\_.
  - c. Pediatrics \_\_\_\_\_.
  - d. Ambulatory Care \_\_\_\_\_.
  - e. Obstetrics/Gyn \_\_\_\_\_.
  - f. Operating Room \_\_\_\_\_.
  - g. Administration \_\_\_\_\_.
  - h. Anesthesia \_\_\_\_\_.
  - i. Psychiatry \_\_\_\_\_.
  - j. Intensive Care \_\_\_\_\_.
  - k. CMS \_\_\_\_\_.
  - l. Community Health Nursing \_\_\_\_\_.
  - m. Other \_\_\_\_\_.



## NURSES' WORK SATISFACTION QUESTIONNAIRE

## PART A

Listed and briefly defined on this sheet of paper are seven terms or factors that are involved in how people feel about their work situation. Each factor has something to do with "work satisfaction." We are interested in determining which of these is most important to you in relation to others.

Please carefully read the definitions for each factor as given below:

1. Pay--the dollar remuneration and fringe benefits received for work done.
2. Autonomy--amount of job-related independence, initiative, and freedom, either permitted or required in daily work activities.
3. Task Requirements--tasks or activities that must be done as a regular part of the job.
4. Organizational Policies--management policies and procedures put forward by the hospital and nursing administration of this hospital.
5. Interaction with Professionals--opportunities presented for both formal and informal social and professional contact during working hours.
6. Professional Status--overall importance or significance felt about your job, both in your view and in the view of others.
7. Interaction with Patients--Direct verbal or non-verbal contact with patients or their families.

**SCORING:** These factors are presented in pairs on the questionnaire that you have been given. Only 20 pairs are presented which are every possible set of combinations. No pair is repeated or reversed. For each pair of terms, decide which one is more important for your job satisfaction or morale. Please indicate your choice by a check on the line in front of it. For example: If you felt that Pay, (as defined above) is more important than Autonomy (as defined above), check the line before Pay.

X      Pay                      or                      Autonomy

We realize it will be difficult to make choices in some cases. However, please do try to select the factor which is more important to you. Please make an effort to answer every item; do not change any of your answers.

## INDICATE THE MORE IMPORTANT OF EACH PAIR

- |  |    |   |
|--|----|---|
| 1 <input type="checkbox"/> Professional Status             | or | <input type="checkbox"/> Organizational Policies        |
| 2 <input type="checkbox"/> Pay                             | or | <input type="checkbox"/> Task Requirements              |
| 3 <input type="checkbox"/> Organizational Policies         | or | <input type="checkbox"/> Interaction with Professionals |
| 4 <input type="checkbox"/> Task Requirements               | or | <input type="checkbox"/> Organizational Policies        |
| 5 <input type="checkbox"/> Interaction with Patients       | or | <input type="checkbox"/> Task Requirements              |
| 6 <input type="checkbox"/> Professional Status             | or | <input type="checkbox"/> Interaction with Patients      |
| 7 <input type="checkbox"/> Pay                             | or | <input type="checkbox"/> Autonomy                       |
| 8 <input type="checkbox"/> Professional Status             | or | <input type="checkbox"/> Task Requirements              |
| 9 <input type="checkbox"/> Professional Status             | or | <input type="checkbox"/> Autonomy                       |
| 10 <input type="checkbox"/> Interaction with Professionals | or | <input type="checkbox"/> Pay                            |
| 11 <input type="checkbox"/> Autonomy                       | or | <input type="checkbox"/> Task Requirements              |
| 12 <input type="checkbox"/> Organizational Policies        | or | <input type="checkbox"/> Autonomy                       |
| 13 <input type="checkbox"/> Interaction with Patients      | or | <input type="checkbox"/> Interaction with Professionals |
| 14 <input type="checkbox"/> Interaction with Professionals | or | <input type="checkbox"/> Autonomy                       |
| 15 <input type="checkbox"/> Organizational Policies        | or | <input type="checkbox"/> Pay                            |
| 16 <input type="checkbox"/> Pay                            | or | <input type="checkbox"/> Interaction with Patients      |
| 17 <input type="checkbox"/> Professional Status            | or | <input type="checkbox"/> Interaction with Professionals |
| 18 <input type="checkbox"/> Task Requirements              | or | <input type="checkbox"/> Interaction with Professionals |
| 19 <input type="checkbox"/> Pay                            | or | <input type="checkbox"/> Professional Status            |
| 20 <input type="checkbox"/> Interaction with Patients      | or | <input type="checkbox"/> Autonomy                       |
| 21 <input type="checkbox"/> Organizational Policies        | or | <input type="checkbox"/> Interaction with Patients      |

## PART B

## NURSES' WORK SATISFACTION QUESTIONNAIRE

The following items represent statements about satisfaction with your occupation. Please respond to each item. It may be very difficult to fit your responses into the seven categories; in that case, select the category that comes closest to your response to the statement. It is very important that you give your honest opinion. Please do not go back and change any of your answers.

## INSTRUCTIONS FOR SCORING

Please circle the number that most closely indicates how you feel about each statement. The left set of numbers indicates degrees of disagreement. The right set of numbers indicates degrees of agreement. The center number means "undecided". Please use it as little as possible. For example, if you strongly disagree with the first item, circle 1; if you moderately agree with the first statement, you would circle 6.

REMEMBER: The more strongly you feel about the statement, the further from the center you should circle, with disagreement to the left and agreement to the right.

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NURSES' WORK SATISFACTION QUESTIONNAIRE Parts A and B adapted from Questionnaire in Stamps, Paula and Piedmonte, Eugene B. Nurses and Work Satisfaction, Ann Arbor. Health Administration Press, 1986. with one factor added by Kathleen Keim.

# Patients' Effect

61

	DISAGREE				AGREE		
	1	2	3	4	5	6	7
1. My present salary is satisfactory.							
2. Most people do not sufficiently appreciate the importance of nursing care to hospital patients.	1	2	3	4	5	6	7
3. The nursing personnel on my service do not hesitate to pitch in and help one another when things get in a rush.	1	2	3	4	5	6	7
4. There is too much clerical and "paperwork" required of nursing personnel in this hospital.	1	2	3	4	5	6	7
5. The nursing staff has sufficient control over scheduling their own work shifts in my hospital.	1	2	3	4	5	6	7
6. Physicians in general cooperate with nursing staff on my unit.	1	2	3	4	5	6	7
7. I feel that I am supervised more closely than is necessary.	1	2	3	4	5	6	7
8. Excluding myself, it is my impression that a lot of nursing personnel at this hospital are dissatisfied with their pay.	1	2	3	4	5	6	7
9. Nursing is a long way from being recognized as a profession.	1	2	3	4	5	6	7
10. New employees are not quickly made to "feel at home" on my unit.	1	2	3	4	5	6	7
11. I think I could do a better job if I did not have so much to do all the time.	1	2	3	4	5	6	7
12. There is a great gap between the administration of this hospital and the daily problems of the nursing service.	1	2	3	4	5	6	7
13. I feel I have sufficient input into the program of care for each of my patients.	1	2	3	4	5	6	7
14. Considering what is expected of nursing service personnel at this hospital, the pay we get is reasonable.	1	2	3	4	5	6	7
15. There is a good deal of teamwork and cooperation between various levels of nursing personnel on my service.	1	2	3	4	5	6	7
16. I enjoy the patients here.	1	2	3	4	5	6	7

Patients' Effect

62

	DISAGREE					AGREE	
17. There is no doubt whatever in my mind that what I do on my job is really important.	1	2	3	4	5	6	7
18. I have too much responsibility and not enough authority.	1	2	3	4	5	6	7
19. There are not enough opportunities for advancement of nursing personnel at this hospital.	1	2	3	4	5	6	7
20. There is a lot of teamwork between nurses and doctors on my unit.	1	2	3	4	5	6	7
21. On my service, my supervisors make all the decisions. I have little direct control over my work.	1	2	3	4	5	6	7
22. It is difficult to care for the patients as people here.	1	2	3	4	5	6	7
23. The present rate of increase in pay for nursing service personnel at this hospital is not satisfactory.	1	2	3	4	5	6	7
24. I am satisfied with the types of activities that I do on my job.	1	2	3	4	5	6	7
25. The nursing personnel on my service are not as friendly and outgoing as I would like.	1	2	3	4	5	6	7
26. I have plenty of time and opportunity to discuss patient care problems with other nursing service personnel.	1	2	3	4	5	6	7
27. A great deal of independence is permitted, if not required of me.	1	2	3	4	5	6	7
28. What I do on my job does not add up to anything really significant.	1	2	3	4	5	6	7
29. There is ample opportunity for nursing staff to participate in the administrative decision-making process.	1	2	3	4	5	6	7
30. There is a lot of "rank consciousness" on my unit. Nursing personnel seldom mingle with others of lower rank.	1	2	3	4	5	6	7
31. I am sometimes required to do things on my job that are against my better professional nursing judgement.	1	2	3	4	5	6	7

# Patients' Effect

63

	DISAGREE				AGREE		
	1	2	3	4	5	6	7
32. I have sufficient time for direct patient care.							
33. I am sometimes frustrated because all of my activities seem programmed for me.							
34. From what I hear from and about nursing service personnel at other hospitals, we at this hospital are being fairly paid.							
35. Administrative decisions at this hospital interfere too much with patient care.							
36. I could deliver much better care if I had more time with each patient.							
37. Physicians at this hospital generally understand and appreciate what the nursing staff does.							
38. If I had the decision to make all over again, I would still go into nursing.							
39. The physicians at this hospital look down too much on the nursing staff.							
40. I have all the voice in planning policies and procedures for this hospital and my unit that I want.							
41. My particular job really doesn't require much skill or "know-how".							
42. The nursing administrators generally consult with the staff on daily problems and procedures.							
43. I have the freedom in my work to make important decisions as I see fit, and can count on my supervisors to back me up.							
44. An upgrading of pay schedules for nursing personnel is needed at this hospital.							
45. It makes me proud to talk to other people about what I do on my job.							
46. I wish the physicians here would show more respect for the skill and knowledge of the nursing staff.							
47. Working with unresponsive patients seems to lengthen my shift.							
48. Visits to the hospital by family members of a patient can make matters much better or much worse.							

Appendix C

Demographics of Respondents

The following tables summarize responses to nine demographic questions asked on the questionnaire distributed to all military and civilian staff assigned to the Department of Nursing, Tripler Army Medical Center, Honolulu, Hawaii, at the end of March 1989. Of the 882 questionnaires distributed, 545 were returned.

Table C-1

Age

Age in years	Frequency	Percent	Cumulative frequency	Cumulative percent
Not given	10	1.8	10	1.8
19 - 20	14	2.6	24	4.4
21 - 25	81	14.9	105	19.3
26 - 30	120	22.0	225	41.3
31 - 35	104	19.1	329	60.4
36 - 40	108	19.8	437	80.2
41 - 45	48	8.8	485	89.0
46 - 50	21	3.8	506	92.8
51 - 55	22	4.1	528	96.9
56 - 60	12	2.2	540	99.1
61 - 65	5	0.9	545	100.0

Table C-2

Sex

Sex	Frequency	Percent	Cumulative frequency	Cumulative percent
Not given	9	1.7	9	1.7
Male	188	34.5	197	36.1
Female	348	63.9	545	100.0

Table C-3

Military or Civilian Status

Status	Frequency	Percent	Cumulative frequency	Cumulative percent
Not given	2	0.4	2	0.4
Military	378	69.4	380	69.7
Civilian	165	30.3	545	100.0



Table C-4

Percent of Time Devoted to Direct Patient Care

Time	Frequency	Percent	Cumulative frequency	Cumulative percent
Not given	16	2.9	16	2.9
Less than 20%	128	23.5	144	26.4
20% to 40%	72	13.2	216	39.6
40% to 60%	126	23.1	342	62.8
More than 60%	203	37.2	545	100.0

Table C-5

Years in Nursing

Years in nursing	Frequency	Percent	Cumulative frequency	Cumulative percent
Not given	43	7.9	43	7.9
0 - 5	151	27.7	194	35.6
6 - 10	127	23.3	321	58.9
11 - 15	91	16.7	412	75.6
16 - 20	73	13.4	485	89.0
21 - 25	24	4.4	509	93.4
26 - 30	21	3.8	530	97.2
31 - 35	9	1.7	539	98.9
36 - 40	5	0.9	544	99.8
40 - 45	1	0.2	545	100.0

Table C-6

Initial Nursing Program

Program	Frequency	Percent	Cumulative frequency	Cumulative percent
Not given	14	2.6	14	2.6
Military training	177	32.5	191	35.0
Associate degree	30	5.5	221	40.6
Diploma program	76	13.9	297	54.5
BSN	182	33.4	479	87.9
Other	66	12.1	545	100.0

Table C-7

Current Level of Nursing Education

Level of education	Frequency	Percent	Cumulative frequency	Cumulative percent
Not given	16	2.9	16	2.9
Military	111	20.4	127	23.3
Associate degree	25	4.6	152	27.9
Diploma	16	2.9	168	30.8
BSN	153	28.1	321	58.9
Masters in nursing	29	5.3	350	64.2
Grad degr o/t nsng	33	6.1	383	70.3
Other	35	6.4	418	76.7
Ward clerk	10	1.8	428	78.5
LPN	80	14.7	508	93.2
Nursing asst.	37	6.8	545	100.0

Table C-8

Primary Responsibility

Responsibility	Frequency	Percent	Cumulative frequency	Cumulative percent
Not given	4	0.7	4	0.7
Patient care	363	66.6	367	67.3
Other	178	32.7	545	100.0

Table C-9

Current Specialty

Specialty	Frequency	Percent	Cumulative frequency	Cumulative percent
Not given	6	1.1	6	1.1
Medical	60	11.0	66	12.1
Surgical	97	17.8	163	29.9
Pediatrics	35	6.4	198	36.3
Ambulatory care	24	4.4	222	40.7
Obstetrics/gyn	49	9.0	271	49.7
Operating room	34	6.2	305	56.0
Administration	46	8.4	351	64.4
Anesthesia	14	2.6	365	67.0
Psychiatry	28	5.1	393	72.1
Intensive care	52	9.5	445	81.7
CMS	26	4.8	471	86.4
Community health	2	0.4	473	86.8
Other	72	13.2	545	100.0

## Appendix D

## Responses: Part A Paired Comparisons

The following figures summarize responses to the paired comparisons in Part A of the questionnaire. Matrices should be read down and to the right. The seven factors of nurse job satisfaction are arrayed along the horizontal and vertical axes; on the horizontal axis is the factor chosen as more important in the paired comparison, on the vertical axis is the less important.

Abbreviations used for the seven factors are PAY (pay), AUT (autonomy), TSK (task requirements), POL (organizational policies), STA (professional status), IPA (interaction with patients), and IPR (interaction with professionals).

For frequency matrices the number in each block is the actual number of respondents who chose the factor on the horizontal axis over the factor to the right on the vertical axis. For proportion matrices the number in each block is the proportion of respondents who chose the factor on the horizontal axis over the factor on the vertical axis.

Below each proportion matrix is the total for each column, which indicates the ranking or relative importance placed on each of the seven factors by the respondents in the subsample. The most important has the highest number.

#### Example

In the overall sample (the first two matrices shown below), of the 545 nurses who returned questionnaires ( $N = 545$ ), 322 identified autonomy as a more important factor than professional status, and 183 identified professional status as more important than autonomy ( $AUT:STA = 322:183$ ).

For the same example,  $322/545 = .59$  was entered under the pay column in the proportion matrix and  $183/545 = .34$  under the autonomy column. In other words, 59% identified autonomy as a more important factor than professional status, 34% identified professional status as more important than autonomy, and 7% did not indicate a choice ( $59\% + 34\% + 7\% = 100\%$ ).

Also for the same example, it can be seen from the proportional preferences that pay was considered a more



important factor than organizational policies in the  
proportion 3.48:1.43.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	268	156	112	184	253	157	→PAY
234	—	143	128	183	264	168	→AUT
357	358	—	131	306	385	227	→TSK
385	361	359	—	384	352	368	→POL <u>Less Important</u>
314	322	201	125	—	297	189	→STA
254	240	123	146	203	—	146	→IPA
342	333	272	136	311	357	—	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	.49	.29	.21	.34	.46	.29	→PAY
.43	—	.26	.23	.34	.48	.31	→AUT
.66	.66	—	.24	.56	.71	.42	→TSK
.71	.66	.66	—	.70	.65	.68	→POL <u>Less Important</u>
.58	.59	.37	.23	—	.54	.35	→STA
.47	.44	.23	.27	.37	—	.27	→IPA
.63	.61	.50	.25	.57	.66	—	→IPR
3.48	3.45	2.31	1.43	2.88	3.50	2.32	← <u>Proportional Preference</u>

Figure D-1. Part A paired comparisons for all respondents.  
N = 545.

## FREQUENCY MATRIX

More Important

PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	85	52	34	56	73	52	↔PAY
86	—	65	62	65	80	59	↔AUT
123	108	—	45	87	116	69	↔TSK
137	107	124	—	122	112	120	↔POL <u>Less Important</u>
115	108	87	56	—	98	73	↔STA
102	90	57	58	75	—	55	↔IPA
120	112	103	54	99	120	—	↔IPR

## PROPORTION MATRIX

More Important

PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	.45	.28	.18	.30	.39	.28	↔PAY
.46	—	.35	.33	.35	.43	.31	↔AUT
.65	.57	—	.24	.46	.62	.37	↔TSK
.73	.57	.66	—	.65	.60	.64	↔POL <u>Less Important</u>
.61	.57	.46	.30	—	.52	.39	↔STA
.54	.48	.30	.31	.40	—	.29	↔IPA
.64	.60	.55	.29	.53	.64	—	↔IPR
3.63	3.24	2.60	1.65	2.69	3.20	2.28	↔ <u>Proportional Preference</u>

Figure D-2. Part A paired comparisons for male respondents. N = 188.

## FREQUENCY MATRIX

More Important

PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
-	180	102	76	126	178	102	→PAY
144	-	77	64	114	179	107	→AUT
229	242	-	83	214	262	151	→TSK
241	247	230	-	257	234	243	→POL <u>Less Important</u>
193	209	110	67	-	192	111	→STA
145	146	64	85	126	-	91	→IPA
216	214	167	79	208	228	-	→IPR

## PROPORTION MATRIX

More Important

PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
-	.52	.29	.22	.36	.51	.29	→PAY
.41	-	.22	.18	.33	.51	.31	→AUT
.66	.70	-	.24	.61	.75	.43	→TSK
.69	.71	.66	-	.74	.67	.70	→POL <u>Less Important</u>
.55	.60	.32	.19	-	.55	.32	→STA
.42	.42	.18	.24	.36	-	.26	→IPA
.62	.61	.48	.23	.60	.66	-	→IPR
3.35	3.56	2.15	1.30	3.00	3.65	2.31	← <u>Proportional Preference</u>

Figure D-3. Part A paired comparisons for female respondents. N = 348.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	200	113	79	141	173	120	→PAY
157	—	83	84	128	172	114	→AUT
249	274	—	106	224	267	172	→TSK
273	267	246	—	273	237	260	→POL <u>Less Important</u>
215	233	136	89	—	213	140	→STA
187	186	94	117	144	—	113	→IPA
234	243	184	99	218	246	—	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.53	.30	.21	.37	.46	.32	→PAY
.42	—	.22	.22	.34	.46	.30	→AUT
.66	.72	—	.28	.59	.71	.46	→TSK
.72	.71	.65	—	.72	.63	.69	→POL <u>Less Important</u>
.57	.62	.36	.24	—	.56	.37	→STA
.49	.49	.25	.31	.38	—	.30	→IPA
.62	.64	.49	.26	.58	.65	—	→IPR
3.48	3.71	2.27	1.52	2.98	3.47	2.44	← <u>Proportional Preference</u>

Figure D-4. Part A paired comparisons for military respondents. N = 378.

## FREQUENCY MATRIX

More Important

PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	67	42	32	43	79	37	→PAY
77	—	59	44	55	91	54	→AUT
108	84	—	25	82	117	54	→TSK
112	93	112	—	111	114	108	→POL <u>Less Important</u>
99	88	64	35	—	83	48	→STA
67	54	29	29	59	—	33	→IPA
107	89	88	37	93	110	—	→IPR

## PROPORTION MATRIX

More Important

PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.41	.25	.19	.26	.48	.22	→PAY
.47	—	.36	.27	.33	.55	.33	→AUT
.65	.51	—	.15	.50	.71	.33	→TSK
.68	.56	.68	—	.67	.69	.65	→POL <u>Less Important</u>
.60	.53	.39	.21	—	.50	.29	→STA
.41	.33	.18	.18	.36	—	.20	→IPA
.65	.54	.53	.22	.56	.67	—	→IPR
3.46	2.88	2.39	1.22	2.68	3.60	2.02	← <u>Proportional Preference</u>

Figure D-5. Part A paired comparisons for civilian respondents. N = 165.

## FREQUENCY MATRIX

More Important

PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	81	37	30	49	54	34	→PAY
40	—	36	30	32	48	37	→AUT
85	85	—	31	64	68	46	→TSK
90	86	84	—	86	67	79	→POL <u>Less Important</u>
71	88	57	34	—	60	45	→STA
64	73	53	51	56	—	52	→IPA
86	83	73	43	75	69	—	→IPR

## PROPORTION MATRIX

More Important

PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.63	.29	.23	.38	.42	.27	→PAY
.31	—	.28	.23	.25	.38	.29	→AUT
.66	.66	—	.24	.50	.53	.36	→TSK
.70	.67	.66	—	.67	.52	.62	→POL <u>Less Important</u>
.55	.69	.45	.27	—	.47	.35	→STA
.50	.57	.41	.40	.44	—	.41	→IPA
.67	.65	.57	.34	.59	.54	—	→IPR
3.39	3.87	2.66	1.71	2.83	2.86	2.30	← <u>Proportional Preference</u>

Figure D-6. Part A paired comparisons for respondents who spent less than 20% of their time on direct patient care. N = 128.

## FREQUENCY MATRIX

More Important

PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	28	15	13	18	36	20	→PAY
39	—	16	10	31	40	19	→AUT
54	53	—	18	52	59	32	→TSK
55	57	50	—	57	53	48	→POL <u>Less Important</u>
49	37	15	11	—	44	18	→STA
33	29	10	16	24	—	14	→IPA
48	49	35	21	50	55	—	→IPR

## PROPORTION MATRIX

More Important

PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.39	.21	.18	.25	.50	.28	→PAY
.54	—	.22	.14	.43	.56	.26	→AUT
.75	.74	—	.25	.72	.82	.44	→TSK
.76	.79	.69	—	.79	.74	.67	→POL <u>Less Important</u>
.68	.51	.21	.15	—	.61	.25	→STA
.46	.40	.14	.22	.33	—	.19	→IPA
.67	.68	.49	.29	.69	.76	—	→IPR
3.86	3.51	1.96	1.23	3.21	3.99	2.09	← <u>Proportional Preference</u>

Figure D-7. Part A paired comparisons for respondents who spent between 20% and 40% of their time on direct patient care. N = 72.



## FREQUENCY MATRIX

More Important

PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	63	40	21	40	59	44	→PAY
48	—	32	31	36	61	34	→AUT
77	81	—	30	72	100	53	→TSK
91	81	81	—	89	84	85	→POL <u>Less Important</u>
71	77	41	28	—	69	44	→STA
57	50	12	28	44	—	28	→IPA
68	79	59	25	67	85	—	→IPR

## PROPORTION MATRIX

More Important

PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.50	.32	.17	.32	.47	.35	→PAY
.38	—	.25	.25	.29	.48	.27	→AUT
.61	.64	—	.24	.57	.79	.42	→TSK
.72	.64	.64	—	.71	.67	.67	→POL <u>Less Important</u>
.56	.61	.33	.22	—	.55	.35	→STA
.45	.40	.10	.22	.35	—	.22	→IPA
.54	.63	.47	.20	.53	.67	—	→IPR
3.26	3.42	2.11	1.30	2.77	3.63	2.28	← <u>Proportional Preference</u>

Figure D-8. Part A paired comparisons for respondents who spent between 40% and 60% of their time on direct patient care. N = 126.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
-	90	59	44	68	97	50	→PAY
102	-	56	52	78	108	72	→AUT
135	129	-	49	115	150	92	→TSK
140	129	136	-	146	139	143	→POL <u>Less Important</u>
119	113	78	47	-	115	75	→STA
94	82	43	47	75	-	46	→IPA
136	115	96	47	113	141	-	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
-	.44	.29	.22	.33	.48	.25	→PAY
.50	-	.28	.26	.38	.53	.35	→AUT
.67	.64	-	.24	.57	.74	.45	→TSK
.69	.64	.67	-	.72	.68	.70	→POL <u>Less Important</u>
.59	.56	.38	.23	-	.57	.37	→STA
.46	.40	.21	.23	.37	-	.23	→IPA
.67	.57	.47	.23	.56	.69	-	→IPR
3.58	3.25	2.30	1.41	2.93	3.69	2.35	← <u>Proportional Preference</u>

Figure D-9. Part A paired comparisons for respondents who spent more than 60% of their time on direct patient care. N = 203.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
-	90	61	40	66	79	55	→PAY
73	-	63	56	64	81	54	→AUT
106	102	-	42	72	110	55	→TSK
122	104	123	-	110	100	121	→POL <u>Less Important</u>
98	102	93	57	-	98	78	→STA
86	85	56	64	65	-	55	→IPA
110	111	110	46	88	112	-	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
-	.51	.34	.23	.37	.45	.31	→PAY
.41	-	.36	.32	.36	.46	.31	→AUT
.60	.58	-	.24	.41	.62	.31	→TSK
.69	.59	.69	-	.62	.56	.68	→POL <u>Less Important</u>
.55	.58	.53	.32	-	.55	.44	→STA
.49	.48	.32	.36	.37	-	.31	→IPA
.62	.63	.62	.26	.50	.63	-	→IPR
3.36	3.37	2.86	1.73	2.63	3.27	2.36	← <u>Proportional Preference</u>

Figure D-10. Part A paired comparisons for respondents whose initial nursing program was military training. N = 177.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	17	5	1	10	17	6	↔PAY
12	—	5	4	3	18	5	↔AUT
24	24	—	11	20	23	12	↔TSK
28	25	14	—	25	27	18	↔POL <u>Less Important</u>
19	26	9	2	—	15	10	↔STA
12	11	6	2	12	—	3	↔IPA
22	24	17	10	19	26	—	↔IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.57	.17	.03	.33	.57	.20	↔PAY
.40	—	.17	.13	.10	.60	.17	↔AUT
.80	.80	—	.37	.67	.77	.40	↔TSK
.93	.83	.47	—	.83	.90	.60	↔POL <u>Less Important</u>
.63	.87	.30	.07	—	.50	.33	↔STA
.40	.37	.20	.07	.40	—	.10	↔IPA
.73	.80	.57	.33	.63	.87	—	↔IPR
3.89	4.24	1.88	1.00	2.96	4.21	1.80	← <u>Proportional Preference</u>

Figure D-11. Part A paired comparisons for respondents whose initial nursing program was an associate degree. N = 30.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	37	27	20	24	41	28	→PAY
35	—	22	17	23	43	32	→AUT
46	49	—	14	49	56	38	→TSK
51	52	55	—	59	51	61	→POL <u>Less Important</u>
46	48	23	14	—	49	25	→STA
32	30	17	22	22	—	23	→IPA
44	40	33	11	46	49	—	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.49	.36	.26	.32	.54	.37	→PAY
.46	—	.29	.22	.30	.57	.42	→AUT
.61	.64	—	.18	.64	.74	.50	→TSK
.67	.68	.72	—	.78	.67	.80	→POL <u>Less Important</u>
.61	.63	.30	.18	—	.64	.33	→STA
.42	.39	.22	.29	.29	—	.30	→IPA
.58	.53	.43	.14	.61	.64	—	→IPR
3.35	3.36	2.32	1.27	2.94	3.80	2.72	← <u>Proportional Preference</u>

Figure D-12. Part A paired comparisons for respondents whose initial nursing program was a diploma program. N = 76.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	86	36	31	57	76	42	→PAY
79	—	25	29	65	72	48	→AUT
133	139	—	51	129	132	92	→TSK
133	134	112	—	136	118	118	→POL <u>Less Important</u>
108	100	37	31	—	90	50	→STA
92	91	33	44	75	—	49	→IPA
120	117	72	46	114	116	—	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.47	.20	.17	.31	.42	.23	→PAY
.43	—	.14	.16	.36	.40	.26	→AUT
.73	.76	—	.28	.71	.73	.51	→TSK
.73	.74	.62	—	.75	.65	.65	→POL <u>Less Important</u>
.59	.55	.20	.17	—	.49	.27	→STA
.51	.50	.18	.24	.41	—	.27	→IPA
.66	.64	.40	.25	.63	.64	—	→IPR
3.65	3.66	1.74	1.27	3.17	3.33	2.19	← <u>Proportional Preference</u>

**Figure D-13.** Part A paired comparisons for respondents whose initial nursing program was a baccalaureate in nursing. N = 182.

**FREQUENCY MATRIX**

<u>More Important</u>							
PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	33	23	14	22	33	18	→PAY
27	—	25	17	20	41	24	→AUT
39	34	—	7	30	55	26	→TSK
44	40	50	—	46	49	42	→POL <u>Less Important</u>
35	41	32	16	—	38	23	→STA
27	19	7	8	23	—	9	→IPA
41	33	31	18	34	50	—	→IPR

**PROPORTION MATRIX**

<u>More Important</u>							
PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	.50	.35	.21	.33	.50	.27	→PAY
.41	—	.38	.26	.30	.62	.36	→AUT
.59	.52	—	.11	.45	.83	.39	→TSK
.67	.61	.76	—	.70	.74	.64	→POL <u>Less Important</u>
.53	.62	.48	.24	—	.58	.35	→STA
.41	.29	.11	.12	.35	—	.14	→IPA
.62	.50	.47	.27	.52	.76	—	→IPR
3.23	3.04	2.55	1.21	2.65	4.03	2.15	↔ <u>Proportional Preference</u>

**Figure D-14.** Part A paired comparisons for respondents whose initial nursing program was described as "other."  
N = 66.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	59	35	23	41	48	30	→PAY
44	—	36	35	37	48	35	→AUT
70	66	—	28	47	72	35	→TSK
78	66	73	—	73	60	77	→POL <u>Less Important</u>
61	67	56	32	—	60	47	→STA
56	56	32	40	41	—	37	→IPA
72	67	66	25	55	65	—	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.53	.32	.21	.37	.43	.27	→PAY
.40	—	.32	.32	.33	.43	.32	→AUT
.63	.59	—	.25	.42	.65	.32	→TSK
.70	.59	.66	—	.66	.54	.69	→POL <u>Less Important</u>
.55	.60	.50	.29	—	.54	.42	→STA
.50	.50	.29	.36	.37	—	.33	→IPA
.65	.60	.59	.23	.50	.59	—	→IPR
3.43	3.41	2.68	1.66	2.65	3.18	2.35	← <u>Proportional Preference</u>

Figure D-15. Part A paired comparisons for respondents whose current level of education was military. N = 111.



## FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	17	7	1	13	16	7	↔PAY
7	—	4	5	8	14	8	↔AUT
17	20	—	10	18	18	10	↔TSK
23	18	11	—	23	21	18	↔POL <u>Less Important</u>
11	16	6	1	—	13	9	↔STA
8	10	6	3	11	—	5	↔IPA
17	16	14	6	15	19	—	↔IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.59	.24	.03	.45	.55	.24	↔PAY
.24	—	.14	.17	.28	.48	.28	↔AUT
.59	.69	—	.34	.62	.62	.34	↔TSK
.79	.62	.38	—	.79	.72	.62	↔POL <u>Less Important</u>
.38	.55	.21	.03	—	.45	.31	↔STA
.28	.34	.21	.10	.38	—	.17	↔IPA
.59	.55	.48	.21	.52	.66	—	↔IPR
2.87	3.34	1.66	.88	3.04	3.48	1.96	← <u>Proportional Preference</u>

Figure D-16. Part A paired comparisons for respondents whose current level of education was an associate degree. N = 25.

## FREQUENCY MATRIX

More Important

PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	6	5	5	6	9	5	→PAY
10	—	5	4	6	10	7	→AUT
11	9	—	1	8	14	6	→TSK
11	12	15	—	12	12	13	→POL <u>Less Important</u>
8	10	8	4	—	11	7	→STA
7	6	2	4	5	—	5	→IPA
11	9	10	2	8	11	—	→IPR

## PROPORTION MATRIX

More Important

PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.38	.31	.31	.38	.56	.31	→PAY
.62	—	.31	.25	.38	.62	.44	→AUT
.69	.56	—	.06	.50	.88	.38	→TSK
.69	.75	.94	—	.75	.75	.81	→POL <u>Less Important</u>
.50	.62	.50	.25	—	.69	.44	→STA
.44	.38	.12	.25	.31	—	.31	→IPA
.69	.56	.62	.12	.50	.69	—	→IPR
3.63	3.25	2.80	1.24	2.82	4.19	2.69	← <u>Proportional Preference</u>

Figure D-17. Part A paired comparisons for respondents whose current level of education was a diploma. N = 16.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	72	31	20	40	61	36	→PAY
69	—	22	25	50	64	38	→AUT
111	117	—	44	112	115	77	→TSK
117	112	92	—	118	104	96	→POL <u>Less Important</u>
100	90	28	25	—	75	39	→STA
82	75	26	34	65	—	38	→IPA
100	103	61	44	100	101	—	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.47	.20	.13	.26	.40	.24	→PAY
.45	—	.14	.16	.33	.42	.25	→AUT
.73	.76	—	.29	.73	.75	.50	→TSK
.76	.73	.60	—	.77	.68	.63	→POL <u>Less Important</u>
.65	.59	.18	.16	—	.49	.25	→STA
.54	.49	.17	.22	.42	—	.25	→IPA
.65	.67	.40	.29	.65	.66	—	→IPR
3.78	3.71	1.69	1.25	3.16	3.40	2.12	← <u>Proportional Preference</u>

**Figure D-18.** Part A paired comparisons for respondents whose current level of education was a B.S. in nursing. N = 153.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	15	6	6	14	10	7	→PAY
14	—	4	4	9	11	6	→AUT
23	25	—	8	22	20	16	→TSK
23	25	20	—	26	19	20	→POL <u>Less Important</u>
15	20	7	3	—	15	8	→STA
19	18	9	10	14	—	11	→IPA
22	23	13	8	21	18	—	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.52	.21	.21	.48	.34	.24	→PAY
.48	—	.14	.14	.31	.38	.21	→AUT
.79	.86	—	.28	.76	.69	.55	→TSK
.79	.86	.69	—	.90	.66	.69	→POL <u>Less Important</u>
.52	.69	.24	.10	—	.52	.28	→STA
.66	.62	.31	.34	.48	—	.38	→IPA
.76	.79	.45	.28	.72	.62	—	→IPR
4.00	4.34	2.04	1.35	3.65	3.21	2.35	← <u>Proportional Preference</u>

**Figure D-19.** Part A paired comparisons for respondents whose current level of education was a masters in nursing. N = 29.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	24	11	11	16	23	13	→PAY
9	—	3	5	10	17	15	→AUT
22	30	—	10	22	25	22	→TSK
21	28	23	—	23	19	26	→POL <u>Less Important</u>
17	23	11	9	—	20	13	→STA
10	16	8	14	13	—	8	→IPA
20	18	11	7	20	25	—	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.73	.33	.33	.48	.70	.39	→PAY
.27	—	.09	.15	.30	.52	.45	→AUT
.67	.91	—	.30	.67	.76	.67	→TSK
.64	.85	.70	—	.70	.58	.79	→POL <u>Less Important</u>
.52	.70	.33	.27	—	.61	.39	→STA
.30	.48	.24	.42	.39	—	.24	→IPA
.61	.55	.33	.21	.61	.76	—	→IPR
3.01	4.22	2.02	1.68	3.15	3.93	2.93	← <u>Proportional Preference</u>

Figure D-20. Part A paired comparisons for respondents whose current level of education was a graduate degree in other than nursing. N = 33.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	2	3	1	0	3	1	→PAY
8	—	8	2	2	7	4	→AUT
7	2	—	0	0	5	0	→TSK
9	8	9	—	5	8	9	→POL <u>Less Important</u>
10	8	10	3	—	4	3	→STA
7	3	5	1	4	—	4	→IPA
9	6	9	1	6	6	—	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	.20	.30	.10	0	.30	.10	→PAY
.80	—	.80	.20	.20	.70	.40	→AUT
.70	.20	—	0	0	.50	0	→TSK
.90	.80	.90	—	.50	.80	.90	→POL <u>Less Important</u>
1.0	.80	1.0	.30	—	.40	.30	→STA
.70	.30	.50	.10	.40	—	.40	→IPA
.90	.60	.90	.10	.60	.60	—	→IPR
5.00	2.90	4.40	.80	1.70	3.30	2.10	← <u>Proportional Preference</u>

Figure D-21. Part A paired comparisons for respondents whose current level of education was ward clerk training. N = 10.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	36	21	12	24	34	18	→PAY
38	—	30	13	27	43	28	→AUT
54	44	—	11	38	59	32	→TSK
60	56	64	—	55	55	51	→POL <u>Less Important</u>
46	46	37	21	—	45	26	→STA
38	30	15	18	27	—	19	→IPA
55	44	41	24	47	56	—	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.45	.26	.15	.30	.43	.22	→PAY
.47	—	.38	.16	.34	.54	.35	→AUT
.68	.55	—	.14	.47	.74	.40	→TSK
.75	.70	.80	—	.69	.69	.64	→POL <u>Less Important</u>
.57	.57	.46	.26	—	.56	.32	→STA
.47	.38	.19	.22	.34	—	.24	→IPA
.69	.55	.51	.30	.59	.70	—	→IPR
3.63	3.20	2.60	1.23	2.73	3.66	2.17	← <u>Proportional Preference</u>

Figure D-22. Part A paired comparisons for respondents whose current level of education was LPN. N = 80.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	12	19	14	8	27	17	→PAY
18	—	18	18	16	26	13	→AUT
15	15	—	6	19	27	9	→TSK
18	12	25	—	24	23	26	→POL <u>Less Important</u>
24	16	14	10	—	23	20	→STA
5	6	6	9	10	—	6	→IPA
15	18	23	7	12	25	—	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	.32	.51	.38	.22	.73	.46	→PAY
.49	—	.49	.49	.43	.70	.35	→AUT
.41	.41	—	.16	.51	.73	.24	→TSK
.49	.32	.68	—	.65	.62	.70	→POL <u>Less Important</u>
.65	.43	.38	.27	—	.62	.54	→STA
.14	.16	.16	.24	.27	—	.16	→IPA
.41	.49	.62	.19	.32	.68	—	→IPR
2.59	2.13	2.84	1.73	2.40	4.08	2.45	← <u>Proportional Preference</u>

Figure D-23. Part A paired comparisons for respondents whose current level of education was nursing assistant training. N = 37.



## FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	167	105	69	119	172	99	→PAY
169	—	90	79	128	182	117	→AUT
241	243	—	88	224	271	162	→TSK
261	250	245	—	269	247	251	→POL <u>Less Important</u>
214	210	116	76	—	196	118	→STA
169	154	69	86	142	—	88	→IPA
233	218	172	86	215	249	—	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.46	.29	.19	.33	.47	.27	→PAY
.47	—	.25	.22	.35	.50	.32	→AUT
.66	.67	—	.24	.62	.75	.45	→TSK
.72	.69	.67	—	.74	.68	.69	→POL <u>Less Important</u>
.59	.58	.32	.21	—	.54	.33	→STA
.47	.42	.19	.24	.39	—	.24	→IPA
.64	.60	.47	.24	.59	.69	—	→IPR
3.55	3.42	2.19	1.34	3.02	3.63	2.30	← <u>Proportional Preference</u>

Figure D-24. Part A paired comparisons for respondents whose primary responsibility was patient care. N = 363.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	100	51	43	62	80	55	→PAY
64	—	52	48	51	81	51	→AUT
114	112	—	42	82	113	64	→TSK
120	108	111	—	114	104	113	→POL <u>Less Important</u>
99	112	81	48	—	98	67	→STA
82	83	51	57	60	—	58	→IPA
108	112	97	50	96	104	—	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.56	.29	.24	.35	.45	.31	→PAY
.36	—	.29	.27	.29	.46	.29	→AUT
.64	.63	—	.24	.46	.63	.36	→TSK
.67	.61	.62	—	.64	.58	.63	→POL <u>Less Important</u>
.56	.63	.46	.27	—	.55	.38	→STA
.46	.47	.29	.32	.34	—	.33	→IPA
.61	.63	.54	.28	.54	.58	—	→IPR
3.30	3.53	2.49	1.62	2.62	3.25	2.30	← <u>Proportional Preference</u>

Figure D-25. Part A paired comparisons for respondents whose primary responsibility was not patient care.  
N = 178.

## FREQUENCY MATRIX

More Important

PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	28	22	13	20	27	20	→PAY
28	—	21	21	20	30	21	→AUT
36	35	—	15	28	37	17	→TSK
41	35	43	—	39	29	38	→POL <u>Less Important</u>
37	38	30	19	—	40	19	→STA
29	27	21	26	18	—	11	→IPA
36	36	40	20	38	47	—	→IPR

## PROPORTION MATRIX

More Important

PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	.47	.37	.22	.33	.45	.33	→PAY
.47	—	.35	.35	.33	.50	.35	→AUT
.60	.58	—	.25	.47	.62	.28	→TSK
.68	.58	.72	—	.65	.48	.63	→POL <u>Less Important</u>
.62	.63	.50	.32	—	.67	.32	→STA
.48	.45	.35	.43	.30	—	.18	→IPA
.60	.60	.67	.33	.63	.78	—	→IPR
3.45	3.31	2.96	1.90	2.71	3.50	2.09	← <u>Proportional Preference</u>

Figure D-26. Part A paired comparisons for respondents whose current specialty was medical. N = 60.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	39	24	17	29	43	23	→PAY
50	—	26	27	46	53	32	→AUT
66	64	—	16	56	65	39	→TSK
74	62	70	—	77	71	62	→POL <u>Less Important</u>
60	45	35	12	—	54	33	→STA
48	38	25	19	37	—	23	→IPA
68	59	51	28	56	68	—	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	.40	.25	.18	.30	.44	.24	→PAY
.52	—	.27	.28	.47	.55	.33	→AUT
.68	.66	—	.16	.58	.67	.40	→TSK
.76	.64	.72	—	.79	.73	.64	→POL <u>Less Important</u>
.62	.46	.36	.12	—	.56	.34	→STA
.49	.39	.26	.20	.38	—	.24	→IPA
.70	.61	.53	.29	.58	.70	—	→IPR
3.77	3.16	2.39	1.23	3.10	3.65	2.19	← <u>Proportional Preference</u>

Figure D-27. Part A paired comparisons for respondents whose current specialty was surgical. N = 97.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	19	16	5	21	23	8	→PAY
13	—	6	4	9	20	9	→AUT
16	26	—	7	21	27	11	→TSK
26	28	24	—	28	27	24	→POL <u>Less Important</u>
11	23	11	4	—	21	9	→STA
9	12	5	5	11	—	6	→IPA
24	23	21	7	23	26	—	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.54	.46	.14	.60	.66	.23	→PAY
.37	—	.17	.11	.26	.57	.26	→AUT
.46	.74	—	.20	.60	.77	.31	→TSK
.74	.8	.69	—	.80	.77	.69	→POL <u>Less Important</u>
.31	.66	.31	.11	—	.60	.26	→STA
.26	.34	.14	.14	.31	—	.17	→IPA
.69	.66	.60	.20	.66	.74	—	→IPR
2.83	3.74	2.37	.90	3.23	4.11	1.92	← <u>Proportional Preference</u>

Figure D-28. Part A paired comparisons for respondents whose current specialty was pediatrics. N = 35.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	17	10	8	8	14	9	→PAY
6	—	8	8	8	11	13	→AUT
13	15	—	6	14	21	10	→TSK
15	15	17	—	18	17	16	→POL <u>Less Important</u>
14	15	8	4	—	14	9	→STA
9	10	2	4	9	—	3	→IPA
14	10	13	6	14	20	—	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	.71	.42	.33	.33	.58	.38	→PAY
.25	—	.33	.33	.33	.46	.54	→AUT
.54	.62	—	.25	.58	.88	.42	→TSK
.62	.62	.71	—	.75	.71	.67	→POL <u>Less Important</u>
.58	.62	.33	.17	—	.58	.38	→STA
.38	.42	.08	.17	.38	—	.12	→IPA
.58	.42	.54	.25	.58	.83	—	→IPR
2.95	3.41	2.41	1.50	2.95	4.04	2.51	← <u>Proportional Preference</u>

Figure D-29. Part A paired comparisons for respondents whose current specialty was ambulatory care. N = 24.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	28	8	8	18	25	14	↔PAY
18	—	13	3	18	24	17	↔AUT
39	34	—	6	33	43	24	↔TSK
38	43	40	—	39	36	40	↔POL <u>Less Important</u>
27	27	14	9	—	24	16	↔STA
22	22	3	10	17	—	14	↔IPA
31	28	22	6	30	32	—	↔IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.57	.16	.16	.37	.51	.29	↔PAY
.37	—	.27	.06	.37	.49	.35	↔AUT
.80	.69	—	.12	.67	.88	.49	↔TSK
.78	.88	.82	—	.80	.73	.82	↔POL <u>Less Important</u>
.55	.55	.29	.18	—	.49	.33	↔STA
.45	.45	.06	.20	.35	—	.29	↔IPA
.63	.57	.45	.12	.61	.65	—	↔IPR
3.58	3.71	2.05	.84	3.17	3.75	2.57	← <u>Proportional Preference</u>

Figure D-30. Part A paired comparisons for respondents whose current specialty was obstetrics/gynecology.  
N = 49.

## FREQUENCY MATRIX

More Important

PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	19	6	3	11	10	10	→PAY
11	—	3	6	7	13	7	→AUT
25	27	—	6	22	24	16	→TSK
26	23	23	—	23	22	23	→POL <u>Less Important</u>
19	22	8	7	—	17	16	→STA
19	17	7	7	13	—	11	→IPA
20	22	12	7	13	19	—	→IPR

## PROPORTION MATRIX

More Important

PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.56	.18	.09	.32	.29	.29	→PAY
.32	—	.09	.18	.21	.38	.21	→AUT
.74	.79	—	.18	.65	.71	.47	→TSK
.76	.68	.68	—	.68	.65	.68	→POL <u>Less Important</u>
.56	.65	.24	.21	—	.50	.47	→STA
.56	.50	.21	.21	.38	—	.32	→IPA
.59	.65	.35	.21	.38	.56	—	→IPR
3.53	3.83	1.75	1.08	2.62	3.09	2.44	← <u>Proportional Preference</u>

Figure D-31. Part A paired comparisons for respondents whose current specialty was operating room. N = 34.



## FREQUENCY MATRIX

More Important

PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	24	20	18	19	17	18	→PAY
21	—	15	11	17	16	15	→AUT
25	29	—	18	25	22	20	→TSK
27	32	27	—	25	23	31	→POL <u>Less Important</u>
25	28	20	20	—	20	14	→STA
28	29	23	22	25	—	24	→IPA
27	30	25	14	31	21	—	→IPR

## PROPORTION MATRIX

More Important

PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.52	.43	.39	.41	.37	.39	→PAY
.46	—	.33	.24	.37	.35	.33	→AUT
.54	.63	—	.39	.54	.48	.43	→TSK
.59	.70	.59	—	.54	.50	.67	→POL <u>Less Important</u>
.54	.61	.43	.43	—	.43	.30	→STA
.61	.63	.50	.48	.54	—	.52	→IPA
.59	.65	.54	.30	.67	.46	—	→IPR
3.33	3.74	2.82	2.23	3.07	2.59	2.64	← <u>Proportional Preference</u>

Figure D-32. Part A paired comparisons for respondents whose current specialty was administration. N = 46.

## FREQUENCY MATRIX

More Important

PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	4	2	3	2	7	2	→PAY
10	—	1	3	1	5	1	→AUT
12	12	—	6	12	13	11	→TSK
10	10	7	—	10	8	10	→POL <u>Less Important</u>
11	13	2	4	—	9	7	→STA
6	8	1	5	5	—	2	→IPA
12	12	2	4	6	11	—	→IPR

## PROPORTION MATRIX

More Important

PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	.29	.14	.21	.14	.50	.14	→PAY
.71	—	.07	.21	.07	.36	.07	→AUT
.86	.86	—	.43	.86	.93	.79	→TSK
.71	.71	.50	—	.71	.57	.71	→POL <u>Less Important</u>
.79	.93	.14	.29	—	.64	.50	→STA
.43	.57	.07	.36	.36	—	.14	→IPA
.86	.86	.14	.29	.43	.79	—	→IPR
4.36	4.22	1.06	1.79	2.57	3.79	2.35	← <u>Proportional Preference</u>

Figure D-33. Part A paired comparisons for respondents whose current specialty was anesthesia. N = 14.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	16	7	3	5	19	10	→PAY
10	—	6	5	10	17	6	→AUT
21	22	—	11	18	27	13	→TSK
24	17	14	—	21	21	23	→POL <u>Less Important</u>
22	17	9	7	—	16	14	→STA
9	11	1	7	11	—	6	→IPA
16	22	14	5	13	20	—	→IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY ↓	AUT ↓	TSK ↓	POL ↓	STA ↓	IPA ↓	IPR ↓	
—	.57	.25	.11	.18	.68	.36	→PAY
.36	—	.21	.18	.36	.61	.21	→AUT
.75	.79	—	.39	.64	.96	.46	→TSK
.86	.61	.50	—	.75	.75	.82	→POL <u>Less Important</u>
.79	.61	.32	.25	—	.57	.50	→STA
.32	.39	.04	.25	.39	—	.21	→IPA
.57	.79	.50	.18	.46	.71	—	→IPR
3.65	3.76	1.82	1.36	2.78	4.28	2.56	← <u>Proportions</u> <u>Preference</u>

**Figure D-34.** Part A paired comparisons for respondents whose current specialty was psychiatry. N = 28.

## FREQUENCY MATRIX

More Important

PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	18	10	5	13	17	11	→PAY
27	—	9	11	20	23	16	→AUT
38	36	—	15	29	39	24	→TSK
39	34	28	—	38	34	33	→POL <u>Less Important</u>
32	25	16	10	—	24	14	→STA
31	22	6	11	21	—	14	→IPA
33	29	21	12	31	31	—	→IPR

## PROPORTION MATRIX

More Important

PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.35	.19	.10	.25	.33	.21	→PAY
.52	—	.17	.21	.38	.44	.31	→AUT
.73	.69	—	.29	.56	.75	.46	→TSK
.75	.65	.54	—	.73	.65	.63	→POL <u>Less Important</u>
.62	.48	.31	.19	—	.46	.27	→STA
.60	.42	.12	.21	.40	—	.27	→IPA
.63	.56	.40	.23	.60	.60	—	→IPR
3.85	3.15	1.73	1.23	2.92	3.23	2.15	← <u>Proportional Preference</u>

Figure D-35. Part A paired comparisons for respondents whose current specialty was intensive care. N = 52.

## FREQUENCY MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	17	11	13	9	9	8	↔PAY
6	—	15	10	6	9	10	↔AUT
12	8	—	5	5	7	9	↔TSK
10	11	18	—	14	10	11	↔POL <u>Less Important</u>
14	17	18	9	—	13	11	↔STA
14	14	16	13	10	—	13	↔IPA
15	13	14	12	12	10	—	↔IPR

## PROPORTION MATRIX

<u>More Important</u>							
PAY	AUT	TSK	POL	STA	IPA	IPR	
↓	↓	↓	↓	↓	↓	↓	
—	.65	.42	.50	.35	.35	.31	↔PAY
.23	—	.58	.38	.23	.35	.38	↔AUT
.46	.31	—	.19	.19	.27	.35	↔TSK
.38	.42	.69	—	.54	.38	.42	↔POL <u>Less Important</u>
.54	.65	.69	.35	—	.50	.42	↔STA
.54	.54	.62	.50	.38	—	.50	↔IPA
.58	.50	.54	.46	.46	.38	—	↔IPR
2.73	3.07	3.54	2.38	2.15	2.23	2.38	↔ <u>Proportional Preference</u>

Figure D-36. Part A paired comparisons for respondents whose current specialty was CMS. N = 26.

## Appendix E

## Responses: Part B Attitude Scale

The following tables summarize responses to the 48 questions asked in Part B of the questionnaire. The seven-step rating scale in the left column shows the actual responses. For scoring procedures see Appendix A. The approximate median is indicated by a double horizontal line.

Table E-1

Response to Part B Statement 1: "My present salary is satisfactory."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		6	1.1	6	1.1
Strongly disagree	1	182	33.4	188	34.5
	<u>2</u>	86	15.8	274	50.3
	3	65	11.9	339	62.2
	4	36	6.6	375	68.8
	5	83	15.2	458	84.0
	6	66	12.1	524	96.1
Strongly agree	7	21	3.9	545	100.0

Table E-2

Response to Part B Statement 2: "Most people do not sufficiently appreciate the importance of nursing care to hospital patients."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		8	1.5	8	1.5
Strongly disagree	1	18	3.3	26	4.8
	2	51	9.4	77	14.1
	3	45	8.3	122	22.4
	4	56	10.3	178	32.7
	5	77	14.1	255	46.8
	<u>6</u>	145	26.6	400	73.4
Strongly agree	7	145	26.6	545	100.0



Table E-3

Response to Part B Statement 3: "The nursing personnel on my service do not hesitate to pitch in and help one another when things get in a rush."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		7	1.3	7	1.3
Strongly disagree	1	43	7.9	50	9.2
	2	48	8.8	98	18.0
	3	49	9.0	147	27.0
	4	45	8.3	192	35.2
	<u>5</u>	90	17.1	285	52.3
	6	143	26.2	428	78.5
Strongly agree	7	117	21.5	545	100.0

Table E-4

Response to Part B Statement 4: "There is too much clerical and  
'paperwork' required of nursing personnel in this hospital."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		4	0.7	4	0.7
Strongly disagree	1	17	3.1	21	3.9
	2	20	3.7	41	7.5
	3	20	3.7	61	11.2
	4	37	6.8	98	18.0
	5	87	16.0	185	33.9
	<u>6</u>	111	20.4	296	54.3
Strongly agree	7	249	45.7	545	100.0

Table E-5

Response to Part B Statement 5: "The nursing staff has sufficient control over scheduling their own work shifts in my hospital."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		11	2.0	11	2.0
Strongly disagree	1	150	27.5	161	29.5
	2	70	12.8	231	42.4
	<u>3</u>	62	11.4	293	53.8
	4	55	10.1	348	63.9
	5	73	13.4	421	77.2
	6	87	16.0	508	93.2
Strongly agree	7	37	6.8	545	100.0

Table E-6

Response to Part B Statement 6: "Physicians in general cooperate with nursing staff on my unit."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		7	1.3	7	1.3
Strongly disagree	1	29	5.3	36	6.6
	2	20	3.7	56	10.3
	3	37	6.8	93	17.1
	4	80	14.7	173	31.7
	<u>5</u>	131	24.0	304	55.8
	6	171	31.4	475	87.2
Strongly agree	7	70	12.8	545	100.0

Table E-7

Response to Part B Statement 7: "I feel that I am supervised more closely than is necessary."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		10	1.8	10	1.8
Strongly disagree	1	145	26.6	155	28.4
	2	117	21.5	272	49.9
	<u>3</u>	102	18.7	374	68.6
	4	73	13.4	447	82.0
	5	41	7.5	488	89.5
	6	30	5.5	518	95.0
Strongly agree	7	27	5.0	545	100.0

Table E-8

Response to Part B Statement 8: "Excluding myself, it is my impression that a lot of nursing personnel at this hospital are dissatisfied with their pay."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		5	0.9	5	0.9
Strongly disagree	1	19	3.5	24	4.4
	2	32	5.9	56	10.3
	3	38	7.0	94	17.2
	4	78	14.3	172	31.6
	5	98	18.0	270	49.5
	<u>6</u>	105	19.3	375	68.8
Strongly agree	7	170	31.2	545	100.0

Table E-9

Response to Part B Statement 9: "Nursing is a long way from  
being recognized as a profession."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		5	0.9	5	0.9
Strongly disagree	1	59	10.8	64	11.7
	2	73	13.4	137	25.1
	3	68	12.5	205	37.6
	4	54	9.9	259	47.5
	<u>5</u>	93	17.1	352	64.6
	6	104	19.1	456	83.7
Strongly agree	7	89	16.3	545	100.0

Table E-10

Response to Part B Statement 10: "New employees are not quickly made to 'feel at home' on my unit."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		4	0.7	4	0.7
Strongly disagree	1	176	32.3	180	33.0
	<u>2</u>	111	20.4	291	53.4
	3	79	14.5	370	67.9
	4	50	9.2	420	77.1
	5	48	8.8	468	85.9
	6	35	6.4	503	92.3
Strongly agree	7	42	7.7	545	100.0



Table E-11

Response to Part B Statement 11: "I think I could do a better job if I did not have so much to do all the time."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		7	1.3	7	1.3
Strongly disagree	1	40	7.3	47	8.6
	2	58	10.6	105	19.3
	3	74	13.6	179	32.8
	4	67	12.3	246	45.1
	<u>5</u>	98	18.0	344	63.1
	6	90	16.5	434	79.6
Strongly agree	7	111	20.4	545	100.0

Table E-12

Response to Part B Statement 12: "There is a great gap between the administration of this hospital and the daily problems of the nursing service."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		4	0.7	4	0.7
Strongly disagree	1	21	3.9	25	4.6
	2	46	8.4	71	13.0
	3	58	10.6	129	23.7
	4	72	13.2	201	36.9
	<u>5</u>	87	16.0	288	52.8
	6	96	17.6	384	70.5
Strongly agree	7	161	29.5	545	100.0

Table E-13

Response to Part B Statement 13: "I feel I have sufficient input into the program of care for each of my patients."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		9	1.7	9	1.7
Strongly disagree	1	30	5.5	39	7.2
	2	34	6.2	73	13.4
	3	50	9.2	123	22.6
	4	90	16.5	213	39.1
	<u>5</u>	106	19.4	319	58.5
	6	162	29.7	481	88.3
Strongly agree	7	64	11.7	545	100.0

Table E-14

Response to Part B Statement 14: "Considering what is expected of nursing service personnel at this hospital, the pay we get is reasonable."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		6	1.1	6	1.1
Strongly disagree	1	197	36.1	203	37.2
	<u>2</u>	116	21.3	319	58.5
	3	79	14.5	398	73.0
	4	42	7.7	440	80.7
	5	50	9.2	490	89.9
	6	43	7.9	533	97.8
Strongly agree	7	12	2.2	545	100.0

Table E-15

Response to Part B Statement 15: "There is a good deal of teamwork and cooperation between various levels of nursing personnel on my service."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		5	0.9	5	0.9
Strongly disagree	1	45	8.3	50	9.2
	2	47	8.6	97	17.8
	3	60	11.0	157	28.8
	4	36	6.6	193	35.4
	<u>5</u>	114	20.9	307	56.3
	6	149	27.3	456	83.7
Strongly agree	7	89	16.3	545	100.0

Table E-16

Response to Part B Statement 16: "I enjoy the patients here."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		7	1.3	7	1.3
Strongly disagree	1	14	2.6	21	3.9
	2	19	3.5	40	7.3
	3	27	5.0	67	12.3
	4	63	11.6	130	23.9
	5	89	16.3	219	40.2
	<u>6</u>	135	24.8	354	65.0
Strongly agree	7	191	35.0	545	100.0

Table E-17

Response to Part B Statement 17: "There is no doubt whatever in my mind that what I do on my job is really important."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		6	1.1	6	1.1
Strongly disagree	1	15	2.8	21	3.9
	2	11	2.0	32	5.9
	3	22	4.0	54	9.9
	4	21	3.9	75	13.8
	5	65	11.9	140	25.7
	<u>6</u>	141	25.9	281	51.6
Strongly agree	7	264	48.5	545	100.0

Table E-18

Response to Part B Statement 18: "I have too much responsibility and not enough authority."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		6	1.1	6	1.1
Strongly disagree	1	48	8.8	54	9.9
	2	85	15.6	139	25.5
	3	98	18.0	237	43.5
	<u>4</u>	73	13.4	310	56.9
	5	99	18.2	409	75.0
	6	61	11.2	470	86.2
Strongly agree	7	75	13.8	545	100.0



Table E-19

Response to Part B Statement 19: "There are not enough opportunities for advancement of nursing personnel at this hospital."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		10	1.8	10	1.8
Strongly disagree	1	34	6.2	44	8.1
	2	34	6.2	78	14.3
	3	67	12.3	145	26.6
	4	64	11.7	209	38.3
	<u>5</u>	86	15.8	295	54.1
	6	101	18.5	396	72.7
Strongly agree	7	149	27.3	545	100.0

Table E-20

Response to Part B Statement 20: "There is a lot of teamwork  
between nurses and doctors on my unit."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		13	2.4	13	2.4
Strongly disagree	1	24	4.4	37	6.8
	2	48	8.8	85	15.6
	3	48	8.8	133	24.4
	4	79	14.5	212	38.9
	<u>5</u>	148	27.2	360	66.1
	6	127	23.3	487	89.4
Strongly agree	7	58	10.6	545	100.0

Table E-21

Response to Part B Statement 21: "On my service, my supervisors make all the decisions. I have little direct control over my work."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		5	0.9	5	0.9
Strongly disagree	1	68	12.5	73	13.4
	2	122	22.4	195	35.8
	<u>3</u>	107	19.6	302	55.4
	4	58	10.6	360	66.1
	5	73	13.4	433	79.4
	6	52	9.5	485	89.0
Strongly agree	7	60	11.0	545	100.0

Table E-22

Response to Part B Statement 22: "It is difficult to care for the patients as people here."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		8	1.5	8	1.5
Strongly disagree	1	169	31.0	177	32.5
	<u>2</u>	118	21.7	295	54.1
	3	99	18.2	394	72.3
	4	61	11.2	455	83.5
	5	39	7.2	494	90.6
	6	28	5.1	522	95.8
Strongly agree	7	23	4.2	545	100.0

Table E-23

Response to Part B Statement 23: "The present rate of increase in pay for nursing service personnel at this hospital is not satisfactory."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		9	1.7	9	1.7
Strongly disagree	1	13	2.4	22	4.0
	2	33	6.1	55	10.1
	3	29	5.3	84	15.4
	4	81	14.9	165	30.3
	5	83	15.2	248	45.5
	<u>6</u>	95	17.4	343	62.9
Strongly agree	7	202	37.1	545	100.0

Table E-24

Response to Part B Statement 24: "I am satisfied with the types of activities that I do on my job."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		13	2.4	13	2.4
Strongly disagree	1	48	8.8	61	11.2
	2	39	7.2	100	18.3
	3	65	11.9	165	30.3
	4	42	7.7	207	38.0
	<u>5</u>	107	19.6	314	57.6
	6	143	26.2	457	83.9
Strongly agree	7	88	16.1	545	100.0

Table E-25

Response to Part B Statement 25: "The nursing personnel on my service are not as friendly and outgoing as I would like."

Responses		Frequency	Percent	Cumulative Frequency	Cumulative Percent
No answer		6	1.1	6	1.1
Strongly disagree	1	149	27.3	155	28.4
	2	117	21.5	272	49.9
	<u>3</u>	86	15.8	358	65.7
	4	61	11.2	419	76.9
	5	49	9.0	468	85.9
	6	50	9.2	518	95.0
Strongly agree	7	27	5.0	545	100.0

Table E-26

Response to Part B Statement 26: "I have plenty of time and opportunity to discuss patient care problems with other nursing service personnel."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		12	2.2	12	2.2
Strongly disagree	1	68	12.5	80	14.7
	2	76	13.9	156	28.6
	3	100	18.3	256	47.0
	<u>4</u>	79	14.5	335	61.5
	5	88	16.1	423	77.6
	6	62	11.4	485	89.0
Strongly agree	7	60	11.0	545	100.0



Table E-27

Response to Part B Statement 27: "A great deal of independence is permitted, if not required of me."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		11	2.0	11	2.0
Strongly disagree	1	35	6.4	46	8.4
	2	20	3.7	66	12.1
	3	47	8.6	113	20.7
	4	79	14.5	192	35.2
	<u>5</u>	121	22.2	313	57.4
	6	135	24.8	448	82.2
Strongly agree	7	97	17.8	545	100.0

Table E-28

Response to Part B Statement 28: "What I do on my job  
does not add up to anything really significant."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		7	1.3	7	1.3
Strongly disagree	1	218	40.0	225	41.3
	<u>2</u>	161	29.5	386	70.8
	3	68	12.5	454	83.3
	4	28	5.1	482	88.4
	5	30	5.5	512	93.9
	6	20	3.7	532	97.6
Strongly agree	7	13	2.4	545	100.0

Table E-29

Response to Part B Statement 29: "There is ample opportunity for nursing staff to participate in the administrative decision-making process."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		9	1.7	9	1.7
Strongly disagree	1	115	21.1	124	22.8
	2	84	15.4	208	38.2
	<u>3</u>	80	14.7	288	52.8
	4	84	15.4	372	68.3
	5	74	13.6	446	81.8
	6	64	11.7	510	93.6
Strongly agree	7	35	6.4	545	100.0

Table E-30

Response to Part B Statement 30: "There is a lot of  
'rank consciousness' on my unit. Nursing personnel  
seldom mingle with others of lower rank."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		6	1.1	6	1.1
Strongly disagree	1	154	28.3	160	29.4
	<u>2</u>	118	21.7	278	51.0
	3	82	15.0	360	66.1
	4	44	8.1	404	74.1
	5	38	7.0	442	81.1
	6	55	10.1	497	91.2
Strongly agree	7	48	8.8	545	100.0

Table E-31

Response to Part B Statement 31: "I am sometimes  
required to do things on my job that are against my  
better professional nursing judgement."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		11	2.0	11	2.0
Strongly disagree	1	141	25.9	152	27.9
	<u>2</u>	117	21.5	269	49.4
	3	60	11.0	329	60.4
	4	46	8.4	375	68.8
	5	58	10.6	433	79.4
	6	60	11.0	493	90.5
Strongly agree	7	52	9.5	545	100.0

Table E-32

Response to Part B Statement 32: "I have sufficient  
time for direct patient care."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		17	3.1	17	3.1
Strongly disagree	1	93	17.1	110	20.2
	2	106	19.4	216	39.6
	<del>3</del> 3	80	14.7	296	54.3
	4	64	11.7	360	66.1
	5	68	12.5	428	78.5
	6	72	13.2	500	91.7
Strongly agree	7	45	8.3	545	100.0

Table E-33

Response to Part B Statement 33: "I am sometimes  
frustrated because all of my activities seem programmed  
for me."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		15	2.8	15	2.8
Strongly disagree	1	63	11.6	78	14.3
	2	92	16.9	170	31.2
	3	101	18.5	271	49.7
	<u>4</u>	72	13.2	343	62.9
	5	79	14.5	422	77.4
	6	74	13.6	496	91.0
Strongly agree	7	49	9.0	545	100.0

Table E-34

Response to Part B Statement 34: "From what I hear from  
and about nursing service personnel at other hospitals,  
we at this hospital are being fairly paid."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		14	2.6	14	2.6
Strongly disagree	1	131	24.0	145	26.6
	2	80	14.7	225	41.3
	<u>3</u>	65	11.9	290	53.2
	4	111	20.4	401	73.6
	5	66	12.1	467	85.7
	6	50	9.2	517	94.9
Strongly agree	7	28	5.1	545	100.0



Table E-35

Response to Part B Statement 35: "Administrative decisions at this hospital interfere too much with patient care."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		18	3.3	18	3.3
Strongly disagree	1	21	3.9	39	7.2
	2	31	5.7	70	12.8
	3	87	16.0	157	28.8
	<u>4</u>	118	21.7	275	50.5
	5	93	17.1	368	67.5
	6	88	16.1	456	83.7
Strongly agree	7	89	16.3	545	100.0

Table E-36

Response to Part B Statement 36: "I could deliver much better care if I had more time with each patient."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		21	3.9	21	3.9
Strongly disagree	1	27	5.0	48	8.8
	2	33	6.1	81	14.9
	3	27	5.0	108	19.8
	4	79	14.5	187	34.3
	<u>5</u>	105	19.3	292	53.6
	6	112	20.6	404	74.1
Strongly agree	7	141	25.9	545	100.0

Table E-37

Response to Part B Statement 37: "Physicians at this hospital generally understand and appreciate what the nursing staff does."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		15	2.8	15	2.8
Strongly disagree	1	44	8.1	59	10.8
	2	57	10.5	116	21.3
	3	77	14.1	193	35.4
	4	56	10.3	249	45.7
	<u>5</u>	120	22.0	369	67.7
	6	121	22.2	490	89.9
Strongly agree	7	55	10.1	545	100.0

Table E-38

Response to Part B Statement 38: "If I had the decision to make all over again, I would still go into nursing."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		18	3.3	18	3.3
Strongly disagree	1	132	24.2	150	27.5
	2	43	7.9	193	35.4
	3	34	6.2	227	41.7
	<u>4</u>	57	10.5	284	52.1
	5	57	10.5	341	62.6
	6	74	13.6	415	76.1
Strongly agree	7	130	23.9	545	100.0

Table E-39

Response to Part B Statement 39: "The physicians at  
this hospital look down too much on the nursing staff."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		17	3.1	17	3.1
Strongly disagree	1	69	12.7	86	15.8
	2	85	15.6	171	31.4
	<del>3</del>	124	22.8	295	54.1
	4	74	13.6	369	67.7
	5	71	13.0	440	80.7
	6	57	10.5	497	91.2
Strongly agree	7	48	8.8	545	100.0

Table E-40

Response to Part B Statement 40: "I have all the voice in planning policies and procedures for this hospital and my unit that I want."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		19	3.5	19	3.5
Strongly disagree	1	142	26.1	161	29.5
	2	100	18.3	261	47.9
	<u>3</u>	93	17.1	354	65.0
	4	75	13.8	429	78.7
	5	51	9.4	480	88.1
	6	42	7.7	522	95.8
Strongly agree	7	23	4.2	545	100.0

Table E-41

Response to Part B Statement 41: "My particular job really doesn't require much skill or 'know-how'."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		12	2.2	12	2.2
Strongly disagree	<u>1</u>	322	59.1	334	61.3
	2	93	17.1	427	78.3
	3	43	7.9	470	86.2
	4	15	2.8	485	89.0
	5	21	3.9	506	92.8
	6	24	4.4	530	97.2
Strongly agree	7	15	2.8	545	100.0

Table E-42

Response to Part B Statement 42: "The nursing administrators generally consult with the staff on daily problems and procedures."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		14	2.6	14	2.6
Strongly disagree	1	132	24.2	146	26.8
	2	78	14.3	224	41.1
	<u>3</u>	60	11.0	284	52.1
	4	87	16.0	371	68.1
	5	66	12.1	437	80.2
	6	64	11.7	501	91.9
Strongly agree	7	44	8.1	545	100.0



Table E-43

Response to Part B Statement 43: "I have the freedom in my work to make important decisions as I see fit, and can count on my supervisors to back me up."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		12	2.2	12	2.2
Strongly disagree	1	79	14.5	91	16.7
	2	42	7.7	133	24.4
	3	69	12.7	202	37.1
	4	66	12.1	268	49.2
	<u>5</u>	87	16.0	355	65.1
	6	116	21.3	471	86.4
Strongly agree	7	74	13.6	545	100.0

Table E-44

Response to Part B Statement 44: "An upgrading of pay  
schedules for nursing personnel is needed at this  
hospital."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		16	2.9	16	2.9
Strongly disagree	1	8	1.5	24	4.4
	2	1	0.2	25	4.6
	3	20	3.7	45	8.3
	4	62	11.4	107	19.6
	5	76	13.9	183	33.6
	<u>6</u>	110	20.2	293	53.8
Strongly agree	7	252	46.2	545	100.0

Table E-45

Response to Part B Statement 45: "It makes me proud to talk to other people about what I do on my job."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		13	2.4	13	2.4
Strongly disagree	1	33	6.1	46	8.4
	2	18	3.3	64	11.7
	3	40	7.3	104	19.1
	4	38	7.0	142	26.1
	5	107	19.6	249	45.7
	<u>6</u>	134	24.6	383	70.3
Strongly agree	7	162	29.7	545	100.0

Table E-46

Response to Part B Statement 46: "I wish the physicians here would show more respect for the skill and knowledge of the nursing staff."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		12	2.2	12	2.2
Strongly disagree	1	32	5.9	44	8.1
	2	34	6.2	78	14.3
	3	56	10.3	134	24.6
	4	57	10.5	191	35.0
	<u>5</u>	113	20.7	304	55.8
	6	89	16.3	393	72.1
Strongly agree	7	152	27.9	545	100.0

Table E-47

Response to Part B Statement 47: "Working with  
unresponsive patients seems to lengthen my shift."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		24	4.4	24	4.4
Strongly disagree	1	73	13.4	97	17.8
	2	57	10.5	154	28.3
	3	55	10.1	209	38.3
	<u>4</u>	118	21.7	327	60.0
	5	72	13.2	399	73.2
	6	60	11.0	459	84.2
Strongly agree	7	86	15.8	545	100.0

Table E-48

Response to Part B Statement 48: "Visits to the hospital by family members of a patient can make matters much better or much worse."

Response scale		Frequency	Percent	Cumulative frequency	Cumulative percent
No answer		19	3.5	19	3.5
Strongly disagree	1	16	2.9	35	6.4
	2	15	2.8	50	9.2
	3	13	2.4	63	11.6
	4	94	17.2	157	28.8
	5	84	15.4	241	44.2
	<u>6</u>	112	20.6	353	64.8
Strongly agree	7	192	35.2	545	100.0

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